

Item No		Quantity	Rate	Amount
	<p><u>BILL NO. 1</u></p> <p><u>PRELIMINARIES</u></p> <p><u>MEANING OF TERMS "TENDER / TENDERER"</u></p> <p>Any reference to the words "Tender" or "Tenderer" herein and/or in any other documentation shall be construed to have the same meaning as the words "Bid" or "Bidder"</p> <p><u>PRELIMINARIES</u></p> <p>The JBCC Preliminaries Code 2103, May 2005 edition for use with the JBCC Principal Building Agreement Edition 4.1 Code 2101, March 2005 is taken to be incorporated herein. The tenderer is deemed to have referred to these documents for the full intent and meaning of each clause. These clauses are referred to by number and heading only. Where standard clauses or options are not applicable to the contract such modifications or corrections as are necessary are given under each relevant clause. Where an item is not relevant to this specific contract such item is marked "N/A" signifying "Not Applicable".</p> <p><u>PRICING OF PRELIMINARIES</u></p> <p>Should Option A, as set out in clause B10.3.1 hereinafter be used for the adjustment of preliminaries then each item priced is to be allocated to one or more of the three categories Fixed, Value Related or Time Related and the respective amounts entered in the spaces provided under each item</p> <p>Items not priced in these Preliminaries shall be deemed to be included elsewhere in these Bills of Quantities.</p> <p><u>SECTION A - JBCC PRINCIPAL BUILDING AGREEMENT</u></p> <p><u>DEFINITIONS</u></p>			
1	<p>A1.0 DEFINITIONS AND INTERPRETATION</p> <p>Clause 1.0</p>			
	<p style="text-align: right;">Carried to Collection</p>		R	
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Clause 1.1 Definition of "**Commencement Date**" is added:

"**COMMENCEMENT DATE**" means the date that the **agreement**, made in terms of the Form of Offer and Acceptance, comes into effect

Clause 1.1 Definition of "**Construction Guarantee**" is amended by replacing it with the following:

"**CONSTRUCTION GUARANTEE**" means a guarantee at call obtained by the **contractor** from an institution approved by the **employer** in terms of the **employer's** construction guarantee form as selected in the **schedule**

Clause 1.1 Definition of "**Construction Period**" is amended by replacing it with the following:

"**CONSTRUCTION PERIOD**" means the period commencing on the **commencement date** and ending on the date of **practical completion**

Clause 1.1 Definition of "**Corrupt Practice**" is added:

"**CORRUPT PRACTICE**" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution.

Clause 1.1 Definition of "**Fraudulent Practice**" is added:

"**FRAUDULENT PRACTICE**" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of any tenderer and includes collusive practice among tenderers (prior to or after the tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the tenderer of the benefits of free and open competition.

Clause 1.1 Definition of "**Interest**" is amended by replacing it with the following:

"**INTEREST**" means the interest rates applicable on this contract, whether specifically indicated in the relevant clauses or not, will be the rate as determined by the Minister of Finance, from time to time, in terms of section 80(1)(b) of the Public Finance Management Act,

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1999 (Act no. 1 of 1999).

Clause 1.1 Definition of "**Principal Agent**" is amended by replacing it with the following:

"**PRINCIPAL AGENT**" means the person or entity appointed by the **employer** and named in the **schedule**. In the event of a **principal agent** not being appointed, then all the duties and obligations of a **principal agent** as detailed in the **agreement** shall be fulfilled by a representative of the **employer** as named in the **schedule**

Clause 1.1 Definition of "**Security**" is amended by replacing it with the following:

"**SECURITY**" means the form of security provided by the **employer** or **contractor**, as stated in the **schedule**, from which the **contractor** or **employer** may recover expense or loss

Clause 1.6 is amended by replacing the words "prepaid registered post, telefax or e-mail" with "pre-paid registered post or telefax"

Clause 1.6.4 is amended by replacing it with the following:

No clause

Fixed: _____ Value: _____
Time: _____

OBJECTIVE AND PREPARATION

1 A2.0 OFFER, ACCEPTANCE AND PERFORMANCE

Clause 2.0

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1	<p>A3.0 DOCUMENTS</p> <p>Clause 3.0</p> <p>Clause 3.2.1 is amended by replacing "14.1" with 14.0"</p> <p>Clause 3.7 is amended by the addition of the following:</p> <p>The contractor shall supply and keep a copy of the JBCC Series 2000 Principal Building Agreement and Preliminaries applicable to this contract on the site, to which the employer, principal agent and agents shall have access at all times</p> <p>Clause 3.10 is amended by replacing the second reference to "principal agent" with the word "employer"</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item			
2	<p>A4.0 DESIGN RESPONSIBILITY</p> <p>Clause 4.0</p> <p>Clause 4.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item			
3	<p>A5.0 EMPLOYER'S AGENTS</p> <p>Clause 5.0</p> <p>Clause 5.1.2 is amended to include clauses 32.6.3, 34.3, 34.4 and 38.5.8</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item			
4	<p>A6.0 SITE REPRESENTATIVE</p> <p>Clause 6.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item			
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1	<p>A7.0 COMPLIANCE WITH REGULATIONS</p> <p>Clause 7.0</p> <p>Note: A separate bill within these bills of quantities / lump sum document has been included for the contractor to have the opportunity to price for all the requirements of the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification. Any items not found within said bill shall be priced under this clause.</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
2	<p>A8.0 WORKS RISK</p> <p>Clause 8.0</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
3	<p>A9.0 INDEMNITIES</p> <p>Clause 9.0</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
4	<p>A10.0 WORKS INSURANCES</p> <p>Clause 10.0</p> <p>Clause 10.0 is amended by the addition of the following clauses:</p> <p>10.5 Damage to the Works</p> <p>(a) Without in any way limiting the contractor's obligations in terms of the contract, the contractor shall bear the full risk of damage to and/or destruction of the works by whatever cause during construction of the works and hereby indemnifies and holds harmless the employer against any such damage. The contractor shall take such precautions and security measures and other steps for the protection and security of the works as the contractor may deem necessary</p>			
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- (b) The **contractor** shall at all times proceed immediately to remove or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works**
- (c) The **employer** shall carry the risk of damage to or destruction of the **works** and materials paid for by the **employer** that is the result of the excepted risks as set out in 10.6
- (d) Where the **employer** bears the risk in terms of this contract, the **contractor** shall, if requested to do so, reinstate any damage or destroyed portions of the **works** and the costs of such reinstatement shall be measured and valued in terms of 32.0 hereof

10.6 Injury to Persons or loss of or damage to Properties

- (a) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable
- (b) The **contractor** shall be liable for and hereby indemnifies the **employer** against any liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immovable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person, arising out of or in the course of or by reason of the execution of the **works** unless due to any act or negligence of any person for whose actions the **employer** is legally liable
- (c) The **contractor** shall, upon receiving a **contract instruction** from the **principal agent**, cause the same to be made good in a perfect and workmanlike manner at his own cost and in default thereof the **employer** shall be entitled to cause it to be made good and to recover the cost thereof from the **contractor** or to deduct the same from amounts due to the **contractor**

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- (d) The **contractor** shall be responsible for the protection and safety of such portions of the premises placed under his control by the **employer** for the purpose of executing the **works** until the issue of the **certificate of practical completion**
- (e) Where the execution of the **works** involves the risk of removal of or interference with support to adjoining properties including land or structures or any structures to be altered or added to, the **contractor** shall obtain adequate insurance and will remain adequately insured or insured to the specific limit stated in the contract against the death of or injury to persons or damage to such property consequent on such removal or interference with the support until such portion of the **works** has been completed
- (f) The **contractor** shall at all times proceed immediately at his own cost to remove or dispose of any debris and to rebuild, restore, replace and/or repair such property and to execute the **works**

10.7 High risk insurance

In the event of the project being executed in a geological area classified as a "High Risk Area", that is an area which is subject to highly unstable subsurface conditions that may result in catastrophic ground movement evident by sinkhole or do line formation the following will apply:

10.7.1 Damage to the works

The **contractor** shall, from the **commencement date** of the **works** until the date of the **certificate of practical completion** bear the full risk of and hereby indemnifies and holds harmless the **employer** against any damage to and/or destruction of the **works** consequent upon a catastrophic ground movement as mentioned above. The **contractor** shall take such precautions and security measures and other steps for the protection of the **works** as he me deem necessary

When so instructed to do so by the **principal agent**, the **contractor** shall proceed immediately to remove and/or dispose of any debris arising from damage to or destruction of the **works** and to rebuild, restore, replace and/or repair the **works** at the **contractor's** own costs

10.7.2 Injury to persons or loss of or damage to

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property

The **contractor** shall be liable for and hereby indemnifies and holds harmless the **employer** against any liability, loss, claim or proceeding arising at any time during the period of the contract whether arising in common law or by statute, consequent upon personal injuries to or the death of any person whomsoever resulting from, arising out of or caused by a catastrophic ground movement as mentioned above

The **contractor** shall be liable for and hereby indemnifies the **employer** against any and all liability, loss, claim or proceeding consequent upon loss of or damage to any moveable or immoveable or personal property or property contiguous to the **site**, whether belonging to or under the control of the **employer** or any other body or person whomsoever arising out of or caused by a catastrophic movement, a mentioned above, which occurred during the period of the contract

10.7.3 It is the responsibility of the **contractor** to ensure that he has adequate insurance to cover his risk and liability as mentioned in 10.7.1 and 10.7.2. Without limiting the **contractor's** obligations in terms of the contract, the **contractor** shall, within twenty one (21) **calender days** of the **commencement date** but before commencement of the **works**, submit to the **employer** proof of such insurance policy, if requested to do so

10.7.4 The employer shall be entitled to recover any and all losses and/or damages of whatever nature suffered or incurred consequent upon the **contractor's** default of his obligations as set out in 10.7.1; 10.7.2 and 10.7.3. Such losses or damages may be recovered from the **contractor** or by deducting the same from any amounts still due under this contract or any other contract presently or hereafter existing between the **employer** and the **contractor** and for this purpose all these contracts shall be considered one indivisible whole

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1	<p>A11.0 LIABILITY INSURANCES</p> <p>Clause 11.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
2	<p>A12.0 EFFECTING INSURANCES</p> <p>Clause 12.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
3	A13.0 No Clause	Item		
4	<p>A14.0 SECURITY</p> <p>Clause 14.0</p> <p>Clauses 14.1 - 14.8 are amended by replacing them with the following:</p> <p>14.1 In respect of contracts with a contract sum up to R1 million, the security to be provided by the contractor to the employer will be a payment reduction of five per cent (5%) of the value certified in the payment certificate (excluding VAT)</p> <p>14.1.1 The payment reduction of the value certified in a payment certificate shall be <i>mutatis mutandi</i> in terms of 31.8(A)</p> <p>14.1.2 The employer shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the employer complies with the provisions of 33.4 in which event the employer's entitlement shall take precedence over his obligations to refund the payment reduction security or portions thereof to the contractor</p> <p>14.2 In respect of contracts with a contract sum above R1 million, the contractor shall have the right to select the security to be provided in terms of 14.3, 14.4, 14.5, 14.6, or 14.7 as stated in the schedule. Such security shall be provided to the employer within twenty-one (21) calender days from commencement date. Should the contractor fail to select the security to be provided or should the contractor fail to provide the</p>			
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employer with the selected **security** within twenty-one (21) **calender days** from **commencement date**, the **security** in terms of 14.7 shall be deemed to have been selected.

14.3 Where **security** as a cash deposit of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.3.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days** from **commencement date**

14.3.2 Within twenty-one (21) **calender days** of the day of **practical completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to three per cent (3%) of the **contract value** (excluding VAT), and refund the balance to the **contractor**

14.3.3 Within twenty-one (21) **calender days** of the date of **final completion** of the **works** the **employer** shall reduce the cash deposit to an amount equal to one per cent (1%) of the **contract value** (excluding VAT) and refund the balance to the **contractor**

14.3.4 On the date of payment of the amount in the final **payment certificate**, the **employer** shall refund the remainder of the cash deposit to the **contractor**

14.3.5 The **employer** shall be entitled to recover expense and loss from the cash deposit in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the cash deposit **security** or portions thereof to the **contractor**

14.3.6 The parties expressly agree that neither the **employer** nor the **contractor** shall be entitled to cede the rights to the deposit to any third party

14.4 Where **security** as a variable **construction guarantee** of ten per cent (10%) of the **contract sum** (excluding VAT) has been selected:

14.4.1 The **contractor** shall furnish the **employer** with an acceptable variable **construction guarantee** equal in value to ten per cent (10%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days**

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from **commencement date**

14.4.2 The variable **construction guarantee** shall reduce and expire in terms of the Variable **Construction Guarantee** form included in the invitation to tender

14.4.3 The **employer** shall return the variable **construction guarantee** to the **contractor** within fourteen (14) **calender days** of it expiring

14.4.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall issue a written demand in terms of the variable **construction guarantee**

14.5 Where **security** as a fixed **construction guarantee** of five per cent (5%) of the **contract sum** (excluding VAT) and a five per cent (5%) payment reduction of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.5.1 The **contractor** shall furnish a fixed **construction guarantee** to the **employer** equal in value to five per cent (5%) of the **contract sum** (excluding VAT)

14.5.2 The fixed **construction guarantee** shall come into force on the date of issue and shall expire on the date of the last certificate of **practical completion**

14.5.3 The **employer** shall return the fixed **construction guarantee** to the **contractor** within fourteen (14) **calender days** of it expiring

14.5.4 The payment reduction of the value certified in a **payment certificate** shall be in terms of 31.8 (A) and 34.8

14.5.5 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** shall be entitled to issue a written demand in terms of the fixed **construction guarantee** or may recover from the payment reduction or may do both

14.6 Where **security** as a cash deposit of five per cent (5%) of the **contract sum** (excluding VAT) and a payment reduction of five per cent (5%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

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14.6.1 The **contractor** shall furnish the **employer** with a cash deposit equal in value to five per cent (5%) of the **contract sum** (excluding VAT) within twenty-one (21) **calender days** from **commencement date**

14.6.2 Within twenty-one (21) **calender days** of the date of **practical completion** of the **works** the **employer** shall refund the cash deposit in total to the **contractor**

14.6.3 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(A)

14.6.4 Where the **employer** has a right of recovery against the **contractor** in terms of 33.0, the **employer** may issue a written notice in terms of 33.4 or may recover from the payment reduction or may do both

14.7 Where **security** as a payment reduction of ten per cent (10%) of the value certified in the **payment certificate** (excluding VAT) has been selected:

14.7.1 The payment reduction of the value certified in a **payment certificate** shall be *mutatis mutandi* in terms of 31.8(B)

14.7.2 The **employer** shall be entitled to recover expense and loss from the payment reduction in terms of 33.0 provided that the **employer** complies with the provisions of 33.4 in which event the **employer's** entitlement shall take precedence over his obligations to refund the payment reduction or portions thereof to the **contractor**

14.8 Payments made by the guarantor to the **employer** in terms of the fixed or variable **construction guarantee** shall not prejudice the rights of the **employer** or **contractor** in terms of this **agreement**

14.9 Should the **contractor** fail to furnish the **security** in terms of 14.2, the **employer**, in his sole discretion and without notification to the **contractor**, is entitled to change the **contractor's** selected form of **security** to that of a ten per cent (10%) payment reduction of the value certified in the **payment certificate** (excluding VAT), whereafter 14.7 shall be applicable

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EXECUTION

1 A15.0 PREPARATION FOR AND EXECUTION OF THE WORKS

Clause 15.0

Clause 15.1.1 is amended by replacing it with:

No clause

Clause 15.1.2 is amended by replacing it with:

The **security** selected in terms of 14.0

Clause 15.1 is amended by the addition of the following clause:

15.1.4 And acceptable health and safety plan, required in terms of the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act 85 of 1993), within twenty-one (21) **calendar days** of **commencement date**

Clause 15.2.1 is amended by replacing it with the following clause:

Give the **contractor** possession of the **site** within ten (10) **working days** of the **contractor** complying with the terms of 15.1.4

Fixed: _____ Value: _____
Time: _____

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2 A16.0 ACCESS TO THE WORKS

Clause 16.0

Fixed: _____ Value: _____
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1	<p>A17.0 CONTRACT INSTRUCTIONS</p> <p>Clause 17.0</p> <p>Clause 17.1.11 is amended by deleting the words "and the appointment of nominated and selected subcontractors"</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
2	<p>A18.0 SETTING OUT OF THE WORKS</p> <p>Clause 18.0</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
3	<p>A19.0 ASSIGNMENT</p> <p>Clause 19.0</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
4	<p>A20.0 NOMINATED SUBCONTRACTORS</p> <p>Clause 20.0</p> <p>Clause 20.1.3 is amended by replacing it with the following:</p> <p>No clause</p> <p>Note: See item B9.1 hereinafter for adjustment of attendance on nominated subcontractors executing work allowed for under provisional sums</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
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1	<p>A21.0 SELECTED SUBCONTRACTORS</p> <p>Clause 21.0</p> <p>Clause 21 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed: _____ Value: _____</p> <p>Time: _____</p>	Item		
2	<p>A22.0 EMPLOYER'S DIRECT CONTRACTORS</p> <p>Clause 22.0</p> <p>Fixed: _____ Value: _____</p> <p>Time: _____</p>	Item		
3	<p>A23.0 CONTRACTOR'S DOMESTIC SUBCONTRACTORS</p> <p>Clause 23.0</p> <p>Fixed: _____ Value: _____</p> <p>Time: _____</p> <p><u>COMPLETION</u></p>	Item		
4	<p>A24.0 PRACTICAL COMPLETION</p> <p>Clause 24.0</p> <p>Fixed: _____ Value: _____</p> <p>Time: _____</p>	Item		
5	<p>A25.0 WORKS COMPLETION</p> <p>Clause 25.0</p> <p>Fixed: _____ Value: _____</p> <p>Time: _____</p>	Item		
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1	<p>A26.0 FINAL COMPLETION</p> <p>Clause 26.0</p> <p>Clause 26.1.2 is amended by inserting "#" next to 26.1.2</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
2	<p>A27.0 LATENT DEFECTS LIABILITY PERIOD</p> <p>Clause 27.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
3	<p>A28.0 SECTIONAL COMPLETION</p> <p>Clause 28.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
4	<p>A29.0 REVISION OF DATE FOR PRACTICAL COMPLETION</p> <p>Clause 29.0</p> <p>Clause 29.2.5 is amended by replacing it with:</p> <p>No clause</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
5	<p>A30.0 PENALTY FOR NON-COMPLETION</p> <p>Clause 30.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p> <p><u>PAYMENT</u></p>	Item		
6	<p>A31.0 INTERIM PAYMENT TO THE CONTRACTOR</p> <p>Clause 31.0</p>			
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Clause 31.5.2 is amended by replacing "14.7.1" with "14.0"

Clause 31.8 is amended by replacing it with the following two alternative clauses:

Alternative A

31.8(A) Where a **security** is selected in terms of 14.1; 14.5 or 14.6, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(A).1 Ninety-five per cent (95%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(A).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date of **final completion**

31.8(A).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(A).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Alternative B

31.8(B) Where **security** as a payment reduction in terms of 14.7 has been selected, the value of the **works** in terms of 31.4.1 and **materials and goods** in terms of 31.4.2 shall be certified in full. The value certified shall be subject to the following percentage adjustments:

31.8(B).1 Ninety per cent (90%) of such value in interim **payment certificates** issued up to the date of **practical completion**

31.8(B).2 Ninety-seven per cent (97%) of such value in interim **payment certificates** issued on the date of **practical completion** and up to but excluding the date

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of **final completion**

31.8(B).3 Ninety-nine per cent (99%) of such value in interim **payment certificates** issued on the date of **final completion** and up to but excluding the final **payment certificate** in terms of 34.6

31.8(B).4 One hundred per cent (100%) of such value in the final **payment certificate** in terms of 34.6 except where the amount certified is in favour of the **employer**. In such an event the payment reduction shall remain at the adjustment level applicable to the final **payment certificate**

Clause 31.12 is amended by deleting the following:

Payment shall be subject to the **employer** giving the **contractor** a tax invoice for the amount due

Fixed: _____ Value: _____
Time: _____

Item

1 A32.0 ADJUSTMENT TO THE CONTRACT VALUE

Clause 32.0

Clauses 32.5.1, 32.5.4 and 32.5.7 are amended by the addition of the following at the end of the sentence:

"due to no fault of the **contractor**"

Fixed: _____ Value: _____
Time: _____

Item

2 A33.0 RECOVERY OF EXPENSE AND LOSS

Clause 33.0

Fixed: _____ Value: _____
Time: _____

Item

Carried to Collection

R

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1	<p>A34.0 FINAL ACCOUNT AND FINAL PAYMENT</p> <p>Clause 34.0</p> <p>Clause 34.1 is amended by removing "#" next to 34.1</p> <p>Clause 34.2 is amended by inserting "#" next to 34.2</p> <p>Clause 34.8 is amended by deleting the words "where security as a fixed construction guarantee in terms of 14.4 has been selected or where payment reduction has been applied in terms of 14.7.1"</p> <p>Clause 34.13 is amended by replacing "seven (7) calender days" with "twenty-one (21) calender days" and deleting the words "subject to the employer giving the contractor a tax invoice for the amount due"</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
2	<p>A35.0 PAYMENT TO OTHER PARTIES</p> <p>Clause 35.0</p> <p>Fixed:_____ Value:_____ Time:_____</p>	Item	
<p>Carried to Collection</p>			R
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CANCELLATION

1 A36.0 CANCELLATION BY EMPLOYER -
CONTRACTOR'S DEFAULT

Clause 36.0

Clause 36.1 is amended by the addition of the following clauses:

36.1.3 refuses or neglects to comply strictly with any of the conditions of contract

36.1.4 estate being sequestrated, liquidated or surrendered in terms of the insolvency laws in force within the Republic of South Africa

36.1.5 in the judgement of the **employer**, has engaged in **corrupt** or **fraudulent practices** in competing for or in executing the contract

Clause 36.3 is amended by removing the reference to "No clause" and replacing the words "**principal agent**" with "**employer**"

Clause 36.0 is amended by the addition of the following clause:

36.7 Notwithstanding any clause to the contrary, on cancellation of this **agreement** either by the **employer** or the **contractor**; or for any reason whatsoever, the **contractor** shall on written instruction, discontinue with the **works** on a date stated and withdraw himself from the **site**. The **contractor** shall not be entitled to refuse to withdraw from the **works** on the grounds of any lien or right of retention or on the grounds of any other right whatsoever

Fixed: _____ Value: _____
Time: _____

Item

Carried to Collection

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1	<p>A37.0 CANCELLATION BY EMPLOYER - LOSS AND DAMAGE</p> <p>Clause 37.0</p> <p>Clause 37.3.5 is amended by replacing "ninety (90) with "one hundred and twenty (120)"</p> <p>Clause 37.0 is amended by the addition of the following clause:</p> <p>37.5 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
2	<p>A38.0 CANCELLATION BY CONTRACTOR - EMPLOYER'S DEFAULT</p> <p>Clause 38.0</p> <p>Clause 38.5.4 is amended by replacing "ninety (90)" with "one-hundred and twenty (120)"</p> <p>Clause 38.0 is amended by the addition of the following clause:</p> <p>38.7 Notwithstanding any clause to the contrary, on cancellation of this agreement either by the employer or the contractor; or for any reason whatsoever, the contractor shall on written instruction, discontinue with the works on a date stated and withdraw himself from the site. The contractor shall not be entitled to refuse to withdraw from the works on the grounds of any lien or right of retention or on the grounds of any other right whatsoever</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
Carried to Collection			R	
<p>Bill No. 1</p> <p>PRELIMINARIES</p> <p>MMPA Quantity Surveyors & Project Managers (Pty) Ltd</p>				

1	<p>A39.0 CANCELLATION - CESSATION OF THE WORKS</p> <p>Clause 39.0</p> <p>Clause 39.3.5 is amended by the addition of the following at the end of the sentence: "within one hundred and twenty (120) working days of completion of such a report"</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p> <p><u>DISPUTE</u></p>	Item		
2	<p>A40.0 DISPUTE SETTLEMENT</p> <p>Clause 40.0</p> <p>Clause 40.2.2 is amended by replacing "one (1) year" with "three (3) years"</p> <p>Clause 40.6 is amended by removing the reference to:</p> <p>No clause</p> <p>Clause 40.7.1 is amended by replacing "(10)" with "(15)" and by the addition of the following:</p> <p>Whether or not mediation resolves the dispute, the parties shall bear their own costs concerning the mediation and equally share the costs of the mediator and related costs</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p> <p><u>SUBSTITUTE PROVISIONS</u></p>	Item		
3	<p>A41.0 STATE CLAUSES</p> <p>Clause 41.0</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
Carried to Collection			R	
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SECTION B - JBCC PRELIMINARIES

B1.0 DEFINITIONS AND INTERPRETATION

1 B1.1 Definition and interpretation

See also clause A1.0 of Section A for additional and/or amended definitions which shall apply equally to this Section

Fixed: _____ Value: _____
Time: _____

Item

B2.0 DOCUMENTS

2 B2.1 Checking of documents

Fixed: _____ Value: _____
Time: _____

Item

3 B2.2 Provisional bills of quantities

Fixed: _____ Value: _____
Time: _____

Item

4 B2.3 Availability of construction documentation

Fixed: _____ Value: _____
Time: _____

Item

5 B2.4 Interest of agents

Fixed: _____ Value: _____
Time: _____

Item

6 B2.5 Priced documents

Fixed: _____ Value: _____
Time: _____

Item

7 B2.6 Tender submission

Clause 2.6 is amended by replacing "JBCC Form of Tender" with "Form of Offer and Acceptance DPW-07(EC)"

Fixed: _____ Value: _____
Time: _____

Item

Carried to Collection

R

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	B3.0 THE SITE				
1	B3.1 Defined works area Fixed:_____ Value:_____ Time:_____	Item			
2	B3.2 Geotechnical investigation Fixed:_____ Value:_____ Time:_____	Item			
3	B3.3 Inspection of the site Fixed:_____ Value:_____ Time:_____	Item			
	No claims for extras arising from the contractor having failed to comply with this clause will be entertained				
4	B3.4 Existing premises occupied Fixed:_____ Value:_____ Time:_____	Item			
5	B3.5 Previous work - dimensional accuracy Fixed:_____ Value:_____ Time:_____	Item			
6	B3.6 Previous work - defects Fixed:_____ Value:_____ Time:_____	Item			
7	B3.7 Services - known Fixed:_____ Value:_____ Time:_____	Item			
8	B3.8 Services - unknown Fixed:_____ Value:_____ Time:_____	Item			
	Carried to Collection		R		
	Bill No. 1 PRELIMINARIES MMPA Quantity Surveyors & Project Managers (Pty) Ltd				

1	B3.9 Protection of trees Fixed:_____ Value:_____ Time:_____	Item		
2	B3.10 Articles of value Fixed:_____ Value:_____ Time:_____	Item		
3	B3.11 Inspection of adjoining properties Fixed:_____ Value:_____ Time:_____	Item		
<u>B4.0 MANAGEMENT OF CONTRACT</u>				
4	B4.1 Management of the works Fixed:_____ Value:_____ Time:_____	Item		
5	B4.2 Programme for the works Fixed:_____ Value:_____ Time:_____	Item		
6	B4.3 Progress meetings Fixed:_____ Value:_____ Time:_____	Item		
7	B4.4 Technical meetings Fixed:_____ Value:_____ Time:_____	Item		
8	B4.5 Labour and plant records Fixed:_____ Value:_____ Time:_____	Item		
Carried to Collection			R	
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	<u>B5.0 SAMPLES, SHOP DRAWINGS AND MANUFACTURERS' INSTRUCTIONS</u>			
1	B5.1 Samples of materials Fixed: _____ Value: _____ Time: _____	Item		
2	B5.2 Workmanship samples Fixed: _____ Value: _____ Time: _____	Item		
3	B5.3 Shop drawings Fixed: _____ Value: _____ Time: _____	Item		
4	B5.4 Compliance with manufacturers' instructions Fixed: _____ Value: _____ Time: _____	Item		
	<u>B6.0 TEMPORARY WORKS AND PLANT</u>			
5	B6.1 Deposits and fees Fixed: _____ Value: _____ Time: _____	Item		
6	B6.2 Enclosure of the works Fixed: _____ Value: _____ Time: _____	Item		
7	B6.3 Advertising Fixed: _____ Value: _____ Time: _____	Item		
8	B6.4 Plant, equipment , sheds and offices Fixed: _____ Value: _____ Time: _____	Item		
	Carried to Collection		R	
	Bill No. 1 PRELIMINARIES MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

1	B6.5 Main notice board Fixed:_____ Value:_____ Time:_____	Item		
2	B6.6 Subcontractors notice board Fixed:_____ Value:_____ Time:_____	Item		
	<u>B7.0 TEMPORARY SERVICES</u>			
3	B7.1 Location Fixed:_____ Value:_____ Time:_____	Item		
4	B7.2 Water Fixed:_____ Value:_____ Time:_____	Item		
5	B7.3 Electricity Fixed:_____ Value:_____ Time:_____	Item		
6	B7.4 Telecommunication facilities Fixed:_____ Value:_____ Time:_____	Item		
7	B7.5 Ablution facilities Fixed:_____ Value:_____ Time:_____	Item		
	<u>B8.0 PRIME COST AMOUNTS</u>			
8	B8.1 Responsibility for prime cost amounts Fixed:_____ Value:_____ Time:_____	Item		
Carried to Collection			R	
Bill No. 1 PRELIMINARIES MMPA Quantity Surveyors & Project Managers (Pty) Ltd				

<u>B9.0 ATTENDANCE ON N/S SUBCONTRACTORS</u>				
1	B9.1 General attendance			
	Fixed:_____ Value:_____			
	Time:_____	Item		
2	B9.2 Special attendance			
	Fixed:_____ Value:_____ Time:_____			
		Item		
3	B9.3 Commissioning - fuel, water and power			
	Fixed:_____ Value:_____			
	Time:_____	Item		
<u>B10.0 FINANCIAL ASPECTS</u>				
4	B10.1 Statutory taxes, duties and levies			
	Fixed:_____ Value:_____			
	Time:_____	Item		
5	B10.2 Payment of preliminaries			
	Fixed:_____ Value:_____			
	Time:_____	Item		
6	B10.3 Adjustment of preliminaries			
	Clauses B10.3.1 and B10.3.2 are amended by replacing "within fifteen (15) working days of taking possession of the site " with "when submitting his priced bills of quantities / lump sum document "			
	Fixed:_____ Value:_____			
	Time:_____	Item		
7	B10.4 Payment certificate cash flow			
	Fixed:_____ Value:_____			
	Time:_____	Item		
Carried to Collection			R	
Bill No. 1 PRELIMINARIES MMPA Quantity Surveyors & Project Managers (Pty) Ltd				

	<u>B11 GENERAL</u>			
1	B11.1 Protection of the works Fixed:_____ Value:_____ Time:_____	Item		
2	B11.2 Protection/isolation of existing/sectionally occupied works Fixed:_____ Value:_____ Time:_____	Item		
3	B11.3 Security of the works Fixed:_____ Value:_____ Time:_____	Item		
4	B11.4 Notice before covering work Fixed:_____ Value:_____ Time:_____	Item		
5	B11.5 Disturbance Fixed:_____ Value:_____ Time:_____	Item		
6	B11.6 Environmental disturbance Fixed:_____ Value:_____ Time:_____	Item		
7	B11.7 Works cleaning and clearing Fixed:_____ Value:_____ Time:_____	Item		
8	B11.8 Vermin Fixed:_____ Value:_____ Time:_____	Item		
9	B11.9 Overhand work Fixed:_____ Value:_____ Time:_____	Item		
	Carried to Collection		R	
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1	B11.10 Instruction manuals and guarantees Fixed:_____ Value:_____ Time:_____	Item		
2	B11.11 As built information Fixed:_____ Value:_____ Time:_____	Item		
3	B11.12 Tenant installations Fixed:_____ Value:_____ Time:_____	Item		
	<u>B12 SCHEDULE OF VARIABLES</u>			
4	B12.1 Schedule of variables This schedule contains all variables referred to in this document and is divided into pre-tender and post-tender categories. The pre-tender category must be completed in full and included in the tender documents. Both the pre-tender and post-tender categories form part of these Preliminaries . Spaces requiring information must be filled in, shown as "not applicable" or deleted and not left blank. Where choices are offered, the non-applicable items are to be deleted. Where insufficient space is provided the information should be annexed hereto and cross-referenced to the applicable clause of the schedule . Key cross reference clauses are italicised in [] brackets Fixed:_____ Value:_____ Time:_____	Item		
	Carried to Collection		R	
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<p>12.1 PRE-TENDER INFORMATION</p> <p>12.1.1 Provisional bills of quantities [2.2] The quantities are provisional YES</p> <p>12.1.2 Availability of construction documentation [2.3] Construction documentation is complete YES</p> <p>12.1.3 Interests of agents [2.4] Details: The professional team has no financial interest in this contract</p> <p>12.1.4 Defined works area [3.1] The site is located at CSIR Rosebank Campus, Lower Hope Road, Rosebank, Cape Town. Further locality of the works within the site is portrayed on architectural drawing number 20394/4101/2 Rev.3 as attached to these bills of quantities.</p> <p>12.1.5 Geotechnical investigation [3.2] Details: A Geotechnical investigation was carried out on the site.</p> <p>12.1.6 Existing premises occupied [3.4] Specific requirements: The existing premises are occupied and tenderer's should take cognisance thereof when pricing this document.</p> <p>12.1.7 Previous work - dimensional accuracy [3.5] Details: The accuracy of the existing building work is accepted</p> <p>12.1.8 Previous work - defects [3.6] Details: The defects are accepted</p> <p>12.1.9 Service - known [3.7] Details: The services that are known will be pointed out to the successful tenderer at the Site Handover Meeting</p> <p>12.1.10 Protection of trees [3.9] Specific requirements: None</p> <p>12.1.11 Inspection of adjoining properties [3.11] Specific requirements: None</p> <p style="text-align: right;">Carried to Collection</p> <p>Bill No. 1 PRELIMINARIES MMPA Quantity Surveyors & Project Managers (Pty) Ltd</p>				
			R	

12.1.12 Enclosure of the works

[6.2] Specific requirements: The Contractor is to safely close-off the areas where construction is taking place as to ensure the safety of CSIR personnel as well as members of the public during all hours

12.1.13 Offices

[6.4.3] Specific requirements: The Contractor shall provide, maintain and remove on completion of the works an office for the exclusive use of the principal agent, minimum size 4 x 3 x 3m high internally, suitably insulated and ventilated, provided with electric lighting and fitted with boarded floor, desk, chair, drawing stool, drawing board and lock-up drawers for drawings. The office shall be kept clean and fit for use at all times.

12.1.14 Main notice board

[6.5] Specific requirements:

The **contractor** shall provide, erect where directed, maintain and remove on completion of the **works** a notice board size 3000 x 3598mm, per typical drawing attached to these Bills of Quantities, constructed of suitable boarding with flat smooth surface and with edging bead 19mm thick round outer edges and projecting 12mm from face of boarding and rounded on front edge. The board shall be securely fixed to a suitable supporting structure of timber or tubular posts and braces.

12.1.15 Subcontractors notice board

[6.6] A notice board is required NO
Specific requirements: NONE

12.1.16 Water

[7.2] Option A (by **contractor**) YES
Option B (by **employer** - free of charge) NO
Option C (by **employer** - metered) NO

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<p>12.1.17 Electricity [7.3] Option A (by contractor) YES Option B (by employer - free of charge) NO Option C (by employer - metered) NO</p>					
<p>12.1.18 Telecommunications [7.4] Telephone YES Facsimile YES E-mail YES</p>					
<p>12.1.19 Ablution facilities [7.5] Option A (by contractor) YES Option B (by employer) NO</p>					
<p>12.1.20 Protection of existing/sectionally occupied works [11.2] Protection is required YES</p>					
<p>12.1.21 Special attendance [9.2] Subcontractor (1) details: N/A Subcontractor (2) details: N/A Subcontractor (3) details: N/A Subcontractor (4) details: N/A</p>					
<p>12.1.22 Protection of the works [11.1] Specific requirements:</p>					
<p>12.1.23 Disturbance [11.5] Specific requirements: The contractor shall keep the site, structures, etc well watered during operations to prevent dust and shall provide and erect and remove on completion of the works all necessary temporary dust screens all to the satisfaction of the principal agent</p>					
<p>12.1.24 Environmental disturbance [11.6] Specific requirements: NONE</p>					
<p>Carried to Collection</p>					
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12.2 POST-TENDER INFORMATION

12.2.1 Payment of preliminaries

[10.2] Option A (prorated) YES

Option B (calculated) NO

12.2.2 Adjustment of preliminaries

[10.3] Option A (three categories) YES / NO

Option B (detailed breakdown) YES / NO

12.2.3 Additional agreed preliminaries items

Details:

SECTION C - SPECIFIC PRELIMINARIES

Section C contains specific preliminary items which apply to this contract except where N/A (Not Applicable) appears against an item

1 C1 CONTRACT DRAWINGS

The drawings issued with this tender documents do not comprise the complete set but serve as a guide only for tendering purposes and for indicating the scope of the work to enable the tenderer to acquaint himself with the nature and extent of the **works** and the manner in which they are to be executed

Should any part of the drawings not be clearly understood by the tenderer he shall, before submitting his tender, obtain clarification in writing from the **principal agent**

Fixed: _____ Value: _____

Time: _____

Item

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1	<p>C2 PREAMBLES</p> <p>The document " Construction Works: Specifications: General Specification (PW371-A) Edition 2.0" is obtainable on the Department's website (http://www.publicworks.gov.za under "Consultants Guidelines") and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
2	<p>C3 TRADE NAMES</p> <p>Wherever a trade name for any product has been described in the bills of quantities, the tenderer's attention is drawn to the fact that any other product of equal quality may be used subject to the written approval of the principal agent being obtained prior to the closing date for submission of tenders</p> <p>If prior written approval for an alternative product is not obtained, the product described shall be deemed to have been tendered for</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
3	<p>C4 IMPORTED MATERIALS AND EQUIPMENT</p> <p>Where imported items are listed in the tender documents, the tenderer shall provide all the information called for, failing which the price of any such item, materials or equipment shall be excluded from currency fluctuations. (refer to Schedule of Imported Materials and Equipment DPW-23(EC) to be completed by tenderer)</p> <p>Notwithstanding any provisions elsewhere regarding the adjustment of contract prices, the price of any item, material or equipment listed in terms of this clause shall be excluded from the Contract Price Adjustment Provisions (if applicable)</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
<p style="text-align: center;">Carried to Collection</p>			R	
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1	<p>C5 VIEWING THE SITE IN SECURITY AREAS N/A</p> <p>The site is situated in a security area and the tenderer must arrange with the unit commander or other responsible officer of the South African Police to obtain permission to enter the site for tendering purposes</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
2	<p>C6 COMMENCEMENT OF WORKS IN SECURITY AREAS N/A</p> <p>As the works falls within a security area the contractor must give the unit commander or other responsible officer notice before commencement of the works. Should the contractor fail to make such arrangements, admission to the site may be refused and any additional costs will be for the contractor's account</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
3	<p>C7 ENTRANCE PERMITS TO SECURITY AREAS N/A</p> <p>As the works falls within a security area the contractor shall obtain entrance permits for his personnel and workmen entering the area and shall comply with all regulations and instructions which may be issued from time to time regarding the protection of persons and property under the control of the Defence Force, Police or chief security officer</p> <p>Fixed:_____ Value:_____</p> <p>Time:_____</p>	Item		
Carried to Collection			R	
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1 C8 SECURITY CHECK OF PERSONNEL

The **principal agent** may require the **contractor** to have his personnel and workmen, or a certain number of them, security classified

In the event of the **principal agent** requesting the removal of a person or persons from the **works** for security reasons, the **contractor** shall do so forthwith and shall thereafter ensure that such person or persons are denied access to the **works** and the **site** and/or to any document or information relating to the **works**

Fixed: _____ Value: _____
Time: _____

Item

2 C9 PROHIBITION ON TAKING PHOTOGRAPHS
N/A

In terms of article 119 of the Defence Act, 44 of 1957, it is prohibited to sketch or to take photographs of any military site or installation or any building or civil works thereon or to be in possession of a camera or other apparatus used for taking photographs except when authorized thereto by or on behalf of the Minister

The same prohibition is also applicable to all correctional institutions in terms of article 44.1(e) of the Correctional Services Act 8 of 1959

Fixed: _____ Value: _____
Time: _____

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C10 HIV/AIDS AWARENESS

It is required of the **contractor** to thoroughly study the HIV/AIDS Specification (PW1544) of the Department that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities**. Provision for pricing of HIV/AIDS awareness is made under items C10.1 to C10.5 hereafter and it is explicitly pointed out that all requirements of the aforementioned specification are deemed to be priced hereunder, as the said items represent the only method of measurement and no additional items or extras to the contract in this regards shall be entertained

The **contractor** must take note that compliance with the HIV/AIDS Specification is compulsory. In the event of partial or total non-compliance, the **principal agent**, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment

1 C10.1 AWARENESS CHAMPION

Selection, appointment, briefing and making available of an Awareness Champion including provision of all relevant services, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value: _____
Time: _____

Item

2 C10.2 AWARENESS WORKSHOPS

Selection and appointment of a competent Service Provider approved by the **principal agent**, provision of a Service Provider Workshop Plan and a suitable venue, conducting of awareness workshops by means of traditional and/or modern multi-media techniques, including follow-up courses, making available all tuition material and performing assessment procedures, all in accordance with the HIV/AIDS Specification

Fixed: _____ Value: _____
Time: _____

Item

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1	<p>C10.3 POSTERS, BOOKLETS, VIDEOS, ETC.</p> <p>Provision, displaying, maintaining and replacing when necessary of four plastic laminated posters, booklets and educational videos, etc. for the duration of the contract period, all in accordance with the HIV/AIDS Specification</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
2	<p>C10.4 ACCESS TO CONDOMS</p> <p>Provision and maintenance of condom dispensers fixed in position, including male and female condoms, replenishing male and female condoms on a daily basis as required for the duration of the construction period, all in accordance with the HIV/AIDS Specification</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
3	<p>C10.5 MONITORING</p> <p>Monitoring HIV/AIDS awareness of workers, providing the principal agent with access to information including making available all reports, thoroughly completed and reflecting the correct information, for the duration of the construction period and close out, all in accordance with the HIV/AIDS Specification</p> <p>Fixed: _____ Value: _____ Time: _____</p>	Item		
4	<p>C10.6 FIXED PRICE CONTRACT</p> <p>This is a fixed price contract and the tenderer is to allow for all cost increases in plant, equipment, fuel, labour and material, etc. in his tender price</p> <p>F:..... V:..... T:.....</p>	Item		
Carried to Collection			R	
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C11 OCCUPATIONAL HEALTH AND SAFETY ACT

The **contractor** shall comply with all the requirements set out in the Construction Regulations, 2014 issued under the Occupational Health and Safety Act, 1993 (Act No 85 of 1993).

It is required of the **contractor** to thoroughly study the Health and Safety Specification that must be read together with and is deemed to be incorporated under this Section of the **bills of quantities / lump sum document**.

The **contractor** must take note that compliance with the Occupational Health and Safety Act, Construction Regulations and Health and Safety Specification is compulsory. In the event of partial or total non compliance, the **principal agent**, notwithstanding the provisions of clause A31.0 of Section A or any other clause to the contrary, reserves the right to delay issuing any progress **payment certificate** until the **contractor** provides satisfactory proof of compliance. The **contractor** shall not be entitled to any compensation of whatsoever nature, including interest, due to such delay of payment.

Fixed: _____ Value related: _____ Time related: _____

SUMMARY OF CATEGORIES

Category: Fixed R

Category: Value R

Category: Time R

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PRELIMINARIES			
<u>COLLECTION</u>			
	Page No	R	Amount
Brought Forward			
Total Brought Forward from Page No.	22		
	23		
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Carried to Summary		R	
Bill No. 1			
PRELIMINARIES			
MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Item No	Quantity	Rate	Amount
<p><u>BILL No. 2</u></p> <p><u>DEMOLITIONS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Proprietary products in descriptions</u></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p> <p><u>View site</u></p> <p>Before submitting his tender the tenderer shall visit the site and satisfy himself as to the nature and extent of the work to be done and the value of the materials contained in the buildings or portions of the buildings to be demolished. No claim for any variations of the contract sum in respect of the nature and extent of the work or of inferior or damaged materials will be entertained</p>			
Carried to Collection		R	
Bill No. 2 DEMOLITIONS MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Explosives

No explosives whatsoever may be used for demolition purposes unless otherwise stated

General

Water supply pipes and other piping in ground that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings to the satisfaction of the principal agent

Unless otherwise described all materials are to become the property of the contractor and are to be removed from the site.

GENERAL

Demolition work

Breaking up and removing

1	Demolish and cart away 600mm wide x 150mm thick reinforced concrete surface water channel.	m	3
2	Hack up and remove paving formed of 100 x 200 x 60mm thick precast concrete paving bricks.	m2	453
3	150 x 300mm Unreinforced concrete kerbs.	m	34
4	Tarmac surfaces.	m2	179

Demolishing and removing

5	Break down and remove car port structure approximately 35m2 in area x 2.1mm high at eaves comprising galvanised steel square support posts and bases, steel beams and purlins and corrugated iron flat roof.	No	1
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Bill No. 2
DEMOLITIONS
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

1	Break down and remove car port structure approximately 100m2 in area x 2.1mm high at eaves comprising galvanised steel square support posts and bases, steel beams and purlins and corrugated iron flat roof.	No	1		
<u>RE-USE OF EXISTING COMPONENTS</u>					
<u>Take up/off carefully and set aside in store for later re-use (elsewhere)</u>					
2	Paving formed of 100 x 200 x 60mm thick precast concrete paving bricks.	m2	226		
Carried to Collection					
				R	

Bill No. 2
DEMOLITIONS
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Bill No. 2

DEMOLITIONS

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DEMOLITIONS

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Item No		Quantity	Rate	Amount
	<u>BILL No. 3</u>			
	<u>ALTERATIONS (PROVISIONAL)</u>			
	<u>PREAMBLES</u>			
	Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
	For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary products in descriptions</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>General</u>			
	Tenderers are advised to visit the site and to inspect the works in conjunction with the drawings in order to ascertain the exact nature and extent of the work to be done.			
	The Contractor will be held solely responsible for checking all floor levels and dimensions in the existing building in order that the new extensions may be correctly lined up. Should any discrepancies be found in the Architect's drawings he should be asked for a decision before continuing with the work.			
	Carried to Collection		R	
	Bill No. 3 ALTERATIONS MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

The Contractor will be held solely responsible for any damage to persons and property, for the safety of the new and existing structure throughout the whole of the contract and must make good, at his own expense, any damage that may occur.

Old materials, which are to become the property of the Contractor as they are pulled down, together with all building debris from any cause whatsoever, are to be immediately carted away and the site left clean and unencumbered. Allow for carting away of all debris and watering the works sufficiently to prevent nuisance from dust.

Allow for giving notice to local or other authorities for disconnecting electric light, water and drainage mains and removing telephone wires, etc., and pay all fees in connection therewith and afford every facility to the workmen carrying out this work.

All materials in this section are measured as new except where old material is specifically mentioned as being re-used.

Old materials, if sound and suitable and approved by the Architect, may be re-used in the new structure. This applies particularly to timber which may be re-used for joists, bracing, fittings, etc. and broken bricks and other similar material which may be used as filling and hardcore.

Wherever old materials are used instead of the new materials measured, an adjustment will be made by the Quantity Surveyor in the final settlement of accounts by deducting the net cost of the new materials and crediting the Contractor with the amount, if any, allowed by him for the old materials.

When pricing, tenderers are to allow for the following mixes

Screed mix to be 3:1 unless otherwise specified.

Plaster mix to be 6:1 unless otherwise specified.

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ALTERATIONS
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When pricing, tenderers are to allow as follows

Where door and window openings, etc., are specified to be filled in, or where jambs, cills, etc. are specified to be built up, brickwork shall be of hard burnt clay stock bricks in Class 1 cement mortar unless otherwise specified, cut, toothed and bonded into existing brickwork and pinned up as required with slates or other hard materials. Brickwork built to fair face or in facings is to be of bricks and pointed to match existing. Plaster is to be 6:1 cement plaster unless otherwise specified.

Where lintels are specified as reinforced concrete the prices are to include for breaking out brickwork over for and inserting cement concrete (20MPa) lintel with 230mm bearing on each end and 254mm deep and reinforced with and including one 12mm diameter mild steel rod for each half brick thickness of wall and including formwork. The steel rods are to be hooked at ends and embedded 25mm up from bottom of lintels. Lintels exceeding 1370mm span to be similarly reinforced but with 20mm diameter mild steel rods.

Where lintels are specified as precast concrete the prices are to include for breaking out brickwork over for and inserting precast prestressed cement concrete (30MPa) lintel with 230mm bearing on each end size 108 x 75mm deep for each half brick thickness of wall.

Water supply pipes and other piping that may be encountered and found necessary to disconnect or cut, shall be effectually stopped off or grubbed up and removed, and any new connections that may be necessary shall be made with proper fittings, to the satisfaction of the principal agent.

Prices for taking out of doors, windows, etc. shall include for removal of all beads, architraves, ironmongery, etc.

Prices for taking out and removing doors and frames shall include for removing door stops, cabin hooks, etc. and making good floor and wall finishes to match existing.

Carried to Collection

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ALTERATIONS

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The term "take out" includes all work taken out, taken up, taken down, taken off, etc.; the term "break up" includes all work broken up, broken down, broken off, etc. and the term "hack off" includes all work hacked off, hacked up, hacked down, etc.

The term "make good" is to include all labour and material required to match existing work.

The terms "take out and remove door", "take out and remove window", "carefully take out, set aside for re-use and later refix window in new position", etc. are to include all materials connected with such door or window such as doors, windows, fanlights, frames, ironmongery, glass, architraves, beads, fillets, cramps, dowels, etc.

The terms "take out and remove sink unit", "take out and remove lavatory basin", "carefully take out, set aside for re-use and later refix W.C. suite in new position", etc. are to include all materials connected with such sanitary fittings such as brackets, cisterns, taps, traps, flushing valves, flush pipes, etc. and are to include for the cutting back and stopping off of supply and waste pipes.

Strutting, shoring, etc. incidental to the alterations shall be deemed to be included in the descriptions.

REMOVALS

Reference to cart away in the description shall mean carting off site to a dumping location to be identified by the Contractor in conjunction with National Legislation and Municipal By-Laws.

Removal of walls, slabs and surface beds

Reinforced concrete

1	100mm Thick slab.	m2	3
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Brickwork

2	Mass brickwork.	m3	4
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Carried to Collection

Bill No. 3

ALTERATIONS

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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1	One brick wall.	m2	38		
	<u>Removal of finishes from walls, floors, ceilings, etc.</u>				
	<u>Floor coverings</u>				
2	Vinyl floor tiling including preparing screed for new vinyl floor covering.	m2	4		
	<u>Floors/walls and make good plaster and screeds as necessary</u>				
3	Hardwood skirting and quadrant.	m	4		
	<u>Removal of suspended floors, panelling, ceilings, etc.</u>				
	<u>Take down and remove ceilings</u>				
4	Suspended ceiling tiles including cornices and grid.	m2	4		
	<u>Removal of doors, windows, fittings, etc.</u>				
	<u>Fibre cement cills</u>				
5	Fibre cement window cill.	m	3		
	<u>Take out and remove doors or windows including thresholds, cills, etc. and build up openings in brickwork including making good cement plaster on both sides</u>				
6	Aluminium window size 3440 x 2530mm from 280mm brick wall.	No	1		
	<u>Taking out/off and removing sundry metalwork</u>				
7	Steel balustrades 1000mm high from concrete landing.	m	17		
	<u>OPENINGS</u>				
	<u>Cut through brick wall for and form window opening, build in window frame, insert precast concrete lintel over, make good including to plaster both sides and to reveals (Window and Cills Elsewhere Measured)</u>				
8	Opening for window size 1600 x 1200mm high in 280mm cavity brick wall.	No	1		
Carried to Collection				R	
Bill No. 3 ALTERATIONS MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

SUNDRIES

Make good cement screed or granolithic finish

1	25mm Thick cement screed in patching including junction with existing.	m2	2
2	25mm Thick untinted granolithic in patching including junction with existing.	m2	1
3	25mm Thick on treads and risers of stairs including reedings.	m2	1

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Item No	Quantity	Rate	Amount
<p><u>BILL No. 4</u></p> <p><u>EARTHWORKS (PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Standard Preambles and the Notes in the various trade bills are to apply equally to this section.</p> <p><u>Quantities</u></p> <p>The quantities of excavations and concrete shall be the net sizes to be formed in accordance with the drawings and specifications and shall be not less than the horizontal area of the bottom of the relevant structures multiplied by the average depth or thickness.</p>			
<p>Carried to Collection</p>			<p>R</p>
<p>Bill No. 4 EARTHWORKS MMPA Quantity Surveyors & Project Managers (Pty) Ltd</p>			

Working space

Working space for any work requiring formwork, brick linings, etc, has been determined by the following conditions and shall be measured where:

1. The depth of the excavation does not exceed 1000mm and the distance from the finished face of the structure to the excavated face is less than 250mm for formwork or 600mm for brick linings and
2. The depth of the excavation exceeds 1000mm and the distance from the finished face of the structure to the excavated face is less than 600mm.

Carting away of excavated material

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site.

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 10 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.

Imported fill:

Filling and bedding to trenches etc. to be in compliance with SANS 1200 DB and LB respectively

Density testing on filling

Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally.

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EARTHWORKS
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EXCAVATIONS, FILLING, ETC.

Excavations

EXCAVATIONS FOR FOUNDATIONS, ETC.

Excavate in earth not exceeding 2m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away

1	Surface trenches.	m3	256
2	Holes.	m3	222

Excavate in earth exceeding 2m deep not exceeding 4m deep including trimming sides, levelling and ramming bottoms and deposit in spoil heaps for later re-use or cart away

3	Holes.	m3	28
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Excavations in earth of more difficult character

4	Extra over excavations in earth for trenches and holes for excavation in soft rock.	m3	36
5	Extra over excavations in earth for trenches and holes for excavation in hard rock.	m3	18

Carting away of excavated material

6	Extra over all excavations for loading surplus or unsuitable material from spoil heaps and cart away to a dumping site to be located by the Contractor.	m3	523
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Risk of collapse of excavations

7	Allow for risk of collapse to sides of trench or hole excavations not exceeding 1.5m deep.	m2	486
8	Allow for risk of collapse to sides of trench or hole excavations exceeding 1.5m deep.	m2	44

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Bill No. 4
EARTHWORKS
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

	<u>Working space</u>					
1	Excavate in earth for working space not exceeding 1500mm deep, 750mm from the face of concrete, for the erection and removal of formwork including backfilling with excavated material compacted in 150mm thick layers to 95% Modified AASHTO dry density.	m2	55			
2	Extra over working space excavations for excavation in soft rock.	m2	6			
3	Ditto, but for excavation in hard rock.	m2	3			
	<u>Keeping excavations free of water</u>					
4	Allow for keeping the excavations free from water.			Item		
	<u>Filling</u>					
	<u>Filling, etc. including compaction density tests</u>					
5	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 95% modified AASHTO dry density in backfilling to trenches, column bases, etc.	m3	175			
	<u>Layer work</u>					
	<u>Layerworks, etc. including compaction density tests</u>					
6	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 95% modified AASHTO dry density under solid floors.	m3	190			
7	Imported G5 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 98% modified AASHTO dry density under solid floors.	m3	33			
8	50mm Thick layer of approved river sand supplied by the Contractor spread and levelled under floors, etc.	m3	19			
	<u>Compaction of surfaces</u>					
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	Bill No. 4 EARTHWORKS MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

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Bill No. 4

EARTHWORKS

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Bill No. 4

EARTHWORKS

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

Item No	Quantity	Rate	Amount
<u>BILL No. 5</u>			
<u>CONCRETE, FORMWORK AND REINFORCEMENT</u>			
<u>PREAMBLES</u>			
Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
<u>Proprietary products in descriptions</u>			
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
Carried to Collection			
Bill No. 5 CONCRETE, FORMWORK AND REINFORCEMENT MMPA Quantity Surveyors & Project Managers (Pty) Ltd			
		R	

Cost of tests

The costs of making, storing and testing of concrete test cubes as required under clause 7 "Tests" of SANS 1200 G shall include the cost of providing cube moulds necessary for the purpose, for testing costs and for submitting reports on the tests to the architect. The testing shall be undertaken by an independent firm or institution nominated by the contractor to the approval of the architect. (Test cubes are measured separately)

Should the strength required for the concrete in any portion of the structure not be attained in the test cubes, or should any concrete whatsoever be defective the portion in question is to be demolished and replaced at the expense of the Contractor.

Reinforced concrete

All reinforced concrete is to be compacted with a mechanical vibrator.

Formwork

Description of formwork shall be deemed to include use and waste only (except where described as "left in" or "permanent"), for fitting together in the required forms, wedging, plumbing and fixing to true angles and surfaces as necessary to ensure easy release during stripping and for reconditioning as necessary before re-use.

The vertical strutting shall be carried down to such construction as is sufficiently strong to afford the required support without damage and shall remain in position until the newly constructed work is able to support itself.

All formwork shall include for propping to not exceeding 3500mm high unless otherwise described.

Formwork to sides of walls and columns shall be to walls and columns not exceeding 3500mm high unless otherwise described.

Formworks to soffits of solid etc. shall be deemed to be slabs not exceeding 250mm thick unless otherwise described.

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CONCRETE, FORMWORK AND REINFORCEMENT
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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Formwork to sides of footings, bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons.

Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations.

CONCRETE

Concrete components

Mass concrete 10MPa (38mm stone) in

- | | | | |
|---|---|----|---|
| 1 | Filling of holes, pockets, etc. in making up levels cast against excavated surfaces. (To be carried out at the sole discretion/instruction of the Engineer) | m3 | 3 |
|---|---|----|---|

Mass concrete 15MPa (19mm stone) in

- | | | | |
|---|--|----|-----|
| 2 | Sleeve plinth block. | m3 | 0.3 |
| 3 | Blinding beneath bases, strip footings, etc cast against excavated surfaces. (Provisional) | m3 | 10 |

Reinforced concrete 15MPa (19mm stone) in

- | | | | |
|---|--|----|-----|
| 4 | Filling to cavity of hollow brick wall in foundations. (Provisional) | m3 | 21 |
| 5 | Filling to cavity of hollow brick buttress in foundations. (Provisional) | m3 | 1 |
| 6 | Filling to cavity of hollow brick wall. | m3 | 0.3 |
| 7 | Filling to cavity of brick nib. | m3 | 0.3 |

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	<u>Reinforced concrete 15MPa (19mm stone) including "Xypex Admix C-500/C-500 NF" or other equal approved waterproofing admixture blended into concrete at batching 2 - 3% by weight of concrete content all as per manufacturers instructions in</u>				
1	Filling to cavity of hollow brick wall in foundations. (Provisional)	m3	10		
	<u>Reinforced concrete 20MPa (19mm stone) in</u>				
2	Grading to bottom of LV trenches.	m3	5		
3	Grading to bottom of drawpit.	m3	1		
	<u>Reinforced concrete 25MPa (26mm stone) in</u>				
4	Strip foundations cast against excavated surfaces. (Provisional)	m3	37		
5	Bases cast against excavated surfaces. (Provisional)	m3	5		
	<u>Reinforced concrete 30MPa (19mm stone) in</u>				
6	Surface beds cast in panels including temporary formwork.	m3	74		
7	Slabs including beams and inverted beams.	m3	56		
8	Isolated beams	m3	1		
9	Stairs including steps, landings, beams and inverted beams.	m3	2		
10	Bund walls.	m3	5		
	<u>Reinforced concrete 30MPa (19mm stone) including "Xypex Admix C-500/C-500 NF" or other equal approved waterproofing admixture blended into concrete at batching 2 - 3% by weight of concrete content all as per manufacturers instructions in</u>				
11	Bases of draw pit.	m3	8		
12	Bases of containment manhole.	m3	1		
13	Bases of diesel tank stand.	m3	24		
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Bill No. 5 CONCRETE, FORMWORK AND REINFORCEMENT MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

1	Bottom of cable trench.	m3	32		
2	Walls in foundations. (Provisional)	m3	42		
	<u>Surface treatment</u>				
3	Wood float surface of concrete.	m2	265		
4	Ditto, but to falls.	m2	80		
5	Wood float top surface of concrete beams.	m2	23		
6	Powerfloating of concrete surface bed or slab.	m2	312		
	<u>Test blocks and testing</u>				
7	Allow for preparing and curing a set of three test cubes, each size 150mm x 150mm x 150mm and pay all transport and testing costs undertaken by an approved independent laboratory. (Provisional)	No	16		
	<u>FORMWORK</u>				
	<u>Rough formwork - Degree of Accuracy III (use and waste) to concrete to</u>				
	<u>Formwork to slabs, beams and stairs</u>				
8	Soffits of slabs propped up exceeding 1.5 not exceeding 3.5m above bearing level.	m2	183		
9	Ditto, but exceeding 3.5 not exceeding 5m above bearing level.	m2	38		
10	Sides of inverted beams propped up not exceeding 1,5m high above bearing level.	m2	15		
11	Outer sides of inverted edge beams propped up exceeding 1.5 not exceeding 3.5m above bearing level.	m2	34		
12	Ditto, but exceeding 3.5 not exceeding 5m above bearing level.	m2	22		
13	Sides and soffits of isolated beams propped up exceeding 1500mm and not exceeding 3500mm high.	m2	12		
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Bill No. 5 CONCRETE, FORMWORK AND REINFORCEMENT MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

<u>Edges, risers, ends and reveals</u>					
1	Edge, riser, etc. not exceeding 300mm high.	m	170		
2	Sloping and stepped edge of stairs 350mm high extreme.	m	2		
3	Sloping edge of stairs not exceeding 300mm high.	m	2		
<u>Smooth formwork - Degree of Accuracy II - (use and waste) to concrete to</u>					
<u>Formwork to walls</u>					
4	Sides of walls not exceeding 3.5m above bearing level.	m2	554		
<u>Edges, risers, ends and reveals</u>					
5	Edge, riser, etc. not exceeding 300mm high.	m	119		
<u>Openings</u>					
6	Leave or form 160mm diameter opening through 300mm thick concrete surface bed for sleeves (elsewhere).	No	14		
7	Form circular opening in 150mm thick slab exceeding 1m not exceeding 2m girth.	No	3		
8	Rebated opening not exceeding 1m girth overall through 100mm slab	No	1		
<u>Projections, grooves, etc.</u>					
<u>Boxing in smooth formwork to form</u>					
9	40 x 40mm Rebates in sides along top edges.	m	178		
10	Labour and material in forming 20 x 20mm chamfer to exposed top edge of concrete.	m	194		
<u>Movement joints</u>					
11	10mm Thick closed cell polyethylene joint filler with hinged blocking piece between concrete and concrete or brickwork surfaces.	m2	183		
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Bill No. 5 CONCRETE, FORMWORK AND REINFORCEMENT MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

1	10mm Thick closed cell polyethylene joint filler with hinged blocking piece between concrete and concrete or brickwork surfaces not exceeding 300mm wide.	m	387
2	Slip joint not exceeding 300mm wide formed of two layers of 3 Ply malthoid laid on and including a 3:1 cement mortar bedding.	m	133
<u>REINFORCEMENT (PROVISIONAL)</u>			
<u>Bar reinforcement</u>			
<u>Mild steel rod reinforcement to structural concrete work</u>			
3	10mm Diameter bars. (Local Production and Content)	t	5.651
<u>High tensile rod reinforcement to structural concrete work</u>			
4	6mm Diameter bars. (Local Production and Content)	t	1.478
5	10mm Diameter bars. (Local Production and Content)	t	6.103
6	12mm Diameter bars. (Local Production and Content)	t	6.164
7	16mm Diameter bars. (Local Production and Content)	t	5.186
8	20mm Diameter bars. (Local Production and Content)	t	1.204

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MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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Welded mesh reinforcement

High tensile welded steel mesh reinforcement

1	Ref: 245 cast into concrete surfaces. (Local Production and Content)	m2	424
2	Ref: 617 cast into concrete surfaces. (Local Production and Content)	m2	989

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MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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Item No		Quantity	Rate	Amount
	<u>BILL NO. 6</u>			
	<u>PRECAST CONCRETE</u>			
	<u>PREAMBLES</u>			
	Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
	For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary products in descriptions</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>Sizes</u>			
	Blocks, sills, etc. measured linear shall be made in suitable lengths. Large size setting out drawings shall be prepared where necessary and submitted to the architect for approval before moulds are made.			
	<u>General</u>			
	Where kerbstones, blocks, etc. are laid in ground descriptions shall be deemed to include necessary excavation, filling in and ramming.			
	Carried to Collection		R	
	Bill No. 6 PRECAST CONCRETE MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

PRECAST CONCRETE SLABS ETC.

Precast concrete left rough from the mould including bedding, jointing and pointing

1	1000 x 150mm Thick duct cover slabs in suitable lengths, closely butted at ends including bedding edges along both sides (reinforcement elsewhere).	m	8
2	1900 x 150mm Thick duct cover slabs in suitable lengths, closely butted at ends including bedding edges along both sides (reinforcement elsewhere).	m	22

Carried to Collection

Bill No. 6
PRECAST CONCRETE
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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Item No	Quantity	Rate	Amount
<p><u>BILL No. 7</u></p> <p><u>MASONRY</u></p> <p><u>PREAMBLES</u></p> <p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Proprietary products in descriptions</u></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p> <p><u>BRICKWORK</u></p> <p><u>Sizes in descriptions</u></p> <p>Where sizes in descriptions are given in brick units, "one brick" shall represent the length and "half brick" the width of a brick.</p>			
<p>Carried to Collection</p>		R	
<p>Bill No. 7 MASONRY MMPA Quantity Surveyors & Project Managers (Pty) Ltd</p>			

<u>Hollow walls</u>					
Descriptions of hollow walls shall be deemed to include leaving every fifth perpend of the bottom course of the external skin open as a weep hole.					
<u>Face bricks</u>					
Bricks shall be ordered timeously to obtain uniformity in size and colour.					
<u>Pointing</u>					
Descriptions of recessed pointing to fair face brickwork and face brickwork shall be deemed to include square recessed, hollow recessed, weathered pointing, etc.					
<u>Samples, etc.</u>					
Rates for brickwork, faced brickwork, etc. shall include for all required samples.					

<u>BRICKWORK</u>					
<u>FOUNDATION BRICKWORK (PROVISIONAL)</u>					
<u>Walls and linings in loadbearing brickwork (14MPa) in stock bricks in 5:1 cement mortar</u>					
1	Half brick lining to concrete and grouting up solid.	m2	40		
2	One brick wall.	m2	74		
3	350mm Thick wall comprising two half brick skins tied together with and including galvanised butterfly wire ties at the minimum rate of 5/m2.	m2	265		
<u>Reinforcement to brickwork</u>					
4	Galvanised brick reinforcement 75mm wide built horizontally into brickwork. (Local Production and Content)	m	183		
Carried to Collection				R	
Bill No. 7 MASONRY MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

1	Galvanised brick reinforcement 150mm wide built horizontally into brickwork. (Local Production and Content)	m	834		
<u>SUPERSTRUCTURE BRICKWORK</u>					
<u>Walls and linings in stock bricks (7MPa) in 5:1 cement mortar</u>					
2	Half brick lining to concrete and grouting up solid.	m2	43		
3	One brick wall.	m2	7		
<u>Walls and linings in loadbearing brickwork (14MPa) in stock bricks in 5:1 cement mortar</u>					
4	One brick wall.	m2	101		
5	280mm Thick cavity wall comprising two half brick skins tied together with and including galvanised butterfly wire ties at the minimum rate of 3.7/m2.	m2	195		
<u>Forming toothings and bondings</u>					
6	Cut toothings and bond new brickwork to existing.	m2	3		
<u>Splayed mortar fillets in cavities</u>					
7	60 x 75mm Triangular cement mortar fillet in cavity wall including forming weepholes at every fifth perpend.	m	97		
<u>Closing cavities</u>					
8	Build vertical 60mm wide cavity solid.	m	47		
9	Build horizontal 60mm wide cavity solid.	m	12		
10	Galvanised sheeting 150mm Wide x 1mm thick twice bent and set in mortar as cavity closer. (Local Production and Content)	m	78		
<u>Joint forming material in movement joints</u>					
11	10mm Thick bitumen impregnated softboard not exceeding 300mm wide built vertically between brick and concrete surfaces.	m	5		
Carried to Collection				R	
Bill No. 7 MASONRY MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

<u>Reinforcement to brickwork</u>					
1	Galvanised brick reinforcement 75mm wide built horizontally into brickwork. (Local Production and Content)	m	153		
2	Galvanised brick reinforcement 150mm wide built horizontally into brickwork. (Local Production and Content)	m	332		
3	Galvanised brick reinforcement 230mm wide built horizontally into brickwork. (Local Production and Content)	m	1 306		
<u>Fabricated lintels</u>					
<u>Precast prestressed vibrated cement concrete (30MPa) lintels including moulds, reinforcement, propping, etc.</u>					
4	Lintel 100mm wide x 75mm deep in lengths not exceeding 3000mm.	m	4		
5	Lintel 150mm wide x 75mm deep in lengths not exceeding 3000mm.	m	5		
<u>Turning pieces</u>					
6	Turning piece to soffit of half brick wall at lintels, etc.	m	12		
<u>FACE BRICKWORK</u>					
<u>External face brickwork</u>					
<u>Allow the prime cost of R 7 500,00 (Seven Thousand Five Hundred Rand), exclusive of value added tax, per thousand face bricks delivered to site and pointed with ruled-in vertical and horizontal joints</u>					
7	Extra over brickwork in foundations for facing and pointing in stretcher bond. (Provisional)	m2	20		
8	Extra over ordinary brickwork for facing and pointing in stretcher bond.	m2	281		
9	One brick wall in English bond including pointing to both sides.	m2	11		
Carried to Collection				R	
Bill No. 7 MASONRY MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

1	Extra over brickwork in foundations for face brickwork in stack bond courses. (Provisional)	m2	46		
2	Extra over brickwork for face brickwork in stack bond courses.	m2	11		
3	50mm Cut brick linings to concrete landings.	m2	1		
4	50mm Cut brick linings to concrete treads and risers.	m2	4		
	<u>Fair cutting to face brickwork</u>				
5	Fair cutting and fitting around pipe not exceeding 100mm diameter.	No	8		
	<u>Face brick copings, lintels, cills, etc.</u>				
	<u>Allow the prime cost of R 7 500,00 (Seven Thousand Five Hundred Rand), exclusive of value added tax, per thousand face bricks delivered to site and pointed with ruled-in vertical and horizontal joints</u>				
6	Extra over brickwork for cut brick-on-edge header course lintel, 170mm wide, including pointing to face and soffit.	m	2		
7	Extra over brickwork for cut brick-on-edge cill, 165mm wide, set sloping and slightly projecting including pointing to face and top.	m	0.5		
8	Extra over brickwork for brick-on-edge header course coping to top on one brick wall, including pointing to both faces and top.	m	4		
9	Extra over brickwork for brick-on-edge header course coping to top of 280mm wall, including pointing to both faces and top.	m	83		
	<u>MISCELLANEOUS</u>				
	<u>Bagging</u>				
10	Bag down face of concrete wall in 3:1 cement slurry in foundations. (Provisional)	m2	58		
11	Bag down outer face of inner skin of brick wall in 4:1 cement slurry.	m2	194		
	Carried to Collection			R	
	Bill No. 7 MASONRY MMPA Quantity Surveyors & Project Managers (Pty) Ltd				

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MASONRY

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

Item No	Quantity	Rate	Amount
<u>BILL No. 8</u>			
<u>WATERPROOFING</u>			
<u>PREAMBLES</u>			
<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
<p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Proprietary products in descriptions</u></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p>			
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Bill No. 8 WATERPROOFING MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Waterproofing

Waterproofing to roofs, etc. must be done by an approved firm of specialists in this type of work and must be carried out in accordance with the Manufacturer's Instructions. The Contractor must provide a ten year guarantee acceptable to the Employer for this work and deposit same with the Architect before the work is put in hand.

Waterproofing to roofs shall be laid to even falls to outlets etc. with necessary ridges, hips and valleys. Descriptions of sheet or membrane waterproofing shall be deemed to include additional labour to turn-ups and turn-downs.

DAMP-PROOF COURSE

General

375 Micron polyethylene damp-proof sheeting

1	Laid in walls.	m2	39
---	----------------	----	----

SHEET OR MEMBRANE WATERPROOFING

Sheet or membrane waterproofing to floors

250 Micron "Gunplas USB" or other equal approved green polyethylene sheeting

2	Laid flat on prepared sand bed under solid floor.	m2	300
---	---	----	-----

3	Dressed up side of walls and under slab.	m2	168
---	--	----	-----

WATERPROOFING TO ROOFS, ETC.

Sheet or membrane waterproofing to roofs

Waterproofing of flat roof structures is to be carried out by an accredited application agent and a Ten Year Guarantee is to be provided for the works undertaken.

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WATERPROOFING

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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	<u>Prepare and apply three coats "ABE Super Laycryl" or other equal approved with reinforced waterproofing membrane including laps, turn-ups, turn-downs, etc.</u>				
1	Flashing strip 450mm girth in sealing edge of waterproofing membrane to plastered walls.	m	78		
	<u>4mm "ABE Index Fidia P" or other equal approved torch on non-woven polyester reinforced membrane to be applied by an accredited waterproofing specialist in strict accordance with the Manufacturer's instructions</u>				
2	On flat roofs including prior priming of substrate with "Bituprime" at a rate of 6m2/litre.	m2	153		
3	Turnups against walls.	m2	20		
4	Sealing membrane at turn-ups or turn-downs.	m	78		
5	Additional membrane including dressing into outlets.	No	7		
6	Cut and fit around fullbore outlet.	No	7		
	<u>Protection</u>				
	<u>Two coats "Silvakote" or other equal approved aluminium paint on</u>				
7	Waterproofing membrane, turnups, etc. (elsewhere).	m2	172		
	<u>LIQUID WATERPROOFING</u>				
	<u>Two coats "ABE Flintkote" or other equal approved water dispersed bitumen emulsion</u>				
8	Vertically on bagged surface of concrete in foundations. (Provisional)	m2	109		
9	Vertically on bagged surface of brickwork.	m2	219		
10	Vertically on bagged surface of concrete beam.	m2	43		
11	Vertically on concrete surface bed edge in narrow widths not exceeding 300mm girth.	m	14		
Carried to Collection				R	
Bill No. 8 WATERPROOFING MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

**WATERSTOPS, SEALING STRIPS, JOINT
SEALANTS, ETC.**

Joint sealants

To horizontal surfaces

- | | | | |
|---|---|---|-----|
| 1 | Remove hinged blocking piece and fill 10 x 10mm top surface cavity with "Sikaflex Pro2HP" or other equal approved two part polyurethane sealer. | m | 346 |
|---|---|---|-----|

To vertical surfaces

- | | | | |
|---|---|---|----|
| 2 | Remove hinged blocking piece and fill 10 x 10mm top surface cavity with "Sikaflex Pro2HP" or other equal approved two part polyurethane sealer. | m | 15 |
|---|---|---|----|

Sundry elements

- | | | | |
|---|---|---|----|
| 3 | Seal and point around aluminium windows, doors, shopfronts, etc. externally with an approved external quality polysulphide sealing compound applied with a pressure caulking gun. | m | 39 |
| 4 | Seal and point around metal door frames with an approved acrylic sealant. | m | 72 |

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WATERPROOFING
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WATERPROOFING

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Bill No. 8

WATERPROOFING

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

Item No	Quantity	Rate	Amount
<u>BILL No. 9</u>			
<u>CARPENTRY AND JOINERY</u>			
<u>PREAMBLES</u>			
<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
<u>Proprietary products in descriptions</u>			
Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
<u>Fixing</u>			
Items described as "nailed" shall be deemed to be fixed with hardened steel nails or shot pins to brickwork or concrete.			
Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
Carried to Collection			R
Bill No. 9 CARPENTRY AND JOINERY MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Joinery

Descriptions of frames shall be deemed to include frames, transoms, mullions, rails, etc.

Descriptions of hardwood joinery shall be deemed to include pelleting of bolt holes.

Decorative thermosetting plastic laminate covering

Laminate covering shall be glued under pressure and edge strips of same shall be butt jointed at junctions with adjacent similar finish.

FLOORS

Skirting

- | | | | |
|---|--|---|---|
| 1 | 16 x 69mm Angle rounded skirting, plugged and including matching quadrant bead planted on. | m | 3 |
|---|--|---|---|

TIMBER DOORS, WINDOWS, ETC.

Doors, windows, sashes, etc.

Semi-solid core flush doors finished on both faces with commercial veneer

- | | | | |
|---|--------------------------------------|----|---|
| 2 | 40mm Door, (Hung) size 813 x 2034mm. | No | 1 |
|---|--------------------------------------|----|---|

"Genesis Acoustics" or other equal approved 51db acoustic doors, including pressed steel frames, ironmongery and finished on both faces with commercial veneer

- | | | | |
|---|---|----|---|
| 3 | 105mm Door, (Hung) size 813 x 2034mm, the door supplied with integral pressed steel double rebated frame 1,6mm thick suitable for 280mm brick wall. | No | 1 |
|---|---|----|---|

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CARPENTRY AND JOINERY
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	<u>"Bitcon Rubidor Stability" or other equal approved Class A fire doors, including pressed steel frames, ironmongery and finished on both faces with commercial veneer</u>				
1	Double door in two equal leaves, size 1810 x 2032mm high, the door supplied with integral pressed steel double rebated frame 1,6mm thick suitable for 280mm brick wall.	No	2		
	<u>"Bitcon Rubidor Stability" or other equal approved Class D fire doors, including pressed steel frames, ironmongery and finished on both faces with commercial veneer</u>				
2	Single door, size 813 x 2032mm high, the door supplied with integral pressed steel double rebated frame 1,6mm thick suitable for 230mm brick wall.	No	1		
3	Double door in two equal leaves, size 1810 x 2032mm high, the door supplied with integral pressed steel double rebated frame 1,6mm thick suitable for 280mm brick wall.	No	1		
4	Double door in two equal leaves, size 1510 x 2032mm high, the door supplied with integral pressed steel double rebated frame 1,6mm thick suitable for 103mm drywall partition.	No	2		
	<u>Plastic, Fibre-cement, Etc.</u>				
	<u>10mm Thick high density plain "Nutech" or other equal approved fibre-cement boards</u>				
5	Boards fixed to mild steel top and bottom rail at 1200mm centres (bolts and rails elsewhere measured).	m2	23		
Carried to Collection					R
Bill No. 9 CARPENTRY AND JOINERY MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

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CARPENTRY AND JOINERY

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CARPENTRY AND JOINERY

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

Item No		Quantity	Rate	Amount
	<u>BILL No. 10</u>			
	<u>CEILINGS, PARTITIONS AND ACCESS FLOORING</u>			
	<u>PREAMBLES</u>			
	<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary products in descriptions</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>Fixing</u>			
	Items described as "nailed" shall be deemed to be fixed with hardened steel nails or pins, or to be shot-pinned, to brickwork or concrete.			
	Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 500mm centres, and where described as "bolted", the bolts have been given elsewhere.			
	Carried to Collection		R	
	Bill No. 10 CEILINGS, PARTITIONS AND ACCESS FLOORING MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Ceilings

Unless otherwise described ceilings shall be deemed to be horizontal.

Prices for openings for light fittings, ventilation grilles, air conditioning diffusers, etc. are to include for any necessary additional support, trimming around, etc.

Steel components

All steel components for ceilings, partitions, etc are to be galvanised in accordance with SANS 121.

Timbers

The sizes of all sawn and wrot timbers are to hold to the full sizes specified. South African Pine shall be referred to as Pine.

CEILINGS

Horizontal suspended ceilings

12.5mm Thick "Gyprex" or other equal approved vinyl-clad, white embossed ceiling tiles size 600 x 600mm in and including a proprietary white powder-coated exposed tee grid system complete including hangers, etc.

1	Horizontal ceiling suspended directly below concrete soffit not exceeding 1000mm.	m2	1
---	---	----	---

Cornices

White powder-coated proprietary cornices and ceiling trims

2	Shadowline cornice.	m	3
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Bill No. 10
CEILINGS, PARTITIONS AND ACCESS FLOORING
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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PARTITIONS

Partitions

132mm Thick drywall partitioning system with 102mm steel studs at 400mm centres covered on both sides with 15mm thick "Rhinoboard Gyproc Saint-Gobain Fire Stop" or other equal approved fire resistant plasterboard sheets with taped and skimmed joints and 70mm high aluminium skirting on both sides and including 102mm thick "Isover Cavitybatt" or other equal approved insulation blanket in cavity

- | | | | |
|---|--|---|---|
| 1 | Partitioning 3200mm high with bottom track fixed to concrete surface bed and top track of tophat/cornice section with 50mm wide x 5mm thick "Sondor SBR" closed cell expanded styrene butadiene rubber density 33 stuck on and fixed to concrete soffit. | m | 8 |
|---|--|---|---|

Ends, intersections, openings, doors and frames, special panels, etc.

Extra over 3200mm high partitioning for

- | | | | |
|---|---|----|---|
| 2 | End next structure. | No | 4 |
| 3 | Forming opening for door, size 1510 x 2100mm high, including aluminium perimeter frame, neoprene gaskets, additional studding, trimming, etc. | No | 2 |

Wall cladding

117mm Thick GypWall SoundBloc HiSpec 102LB/F60S71 Wall Cladding With 102mm DonnFrame LB Studs At 600mm Centres And 102mm Top And Bottom DonnFrame LB Tracks Covered On One Side With 15mm Gyproc SoundBloc Boards With Staggered And Skimmed Joints With Gyproc Rhino Tape On Joints And Internal Corners And Donn Corner Bead On External Corners And 70mm High Aluminium Skirting On One Side And 102mm Isover Cavitybatt In Cavity

- | | | | |
|---|--|---|----|
| 4 | Cladding 3800mm high with bottom track plugged, top track fixed to underside of concrete slab and studs fixed to brick wall. | m | 24 |
|---|--|---|----|

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Bill No. 10
CEILINGS, PARTITIONS AND ACCESS FLOORING
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

<u>Extra Over Partitions For</u>					
1	Opening size 4075 x 3000mm including anodised aluminium channel surround as detail, additional studding, trimming, etc.	No	1		
2	Opening size 2800 x 3000mm including anodised aluminium channel surround as detail, additional studding, trimming, etc.	No	1		
3	Opening size 600 x 1800mm including anodised aluminium channel surround as detail, additional studding, trimming, etc.	No	1		
<u>Ceiling cladding</u>					
<u>117mm Thick GypWall SoundBloc HiSpec</u> <u>102LB/F60S71 Ceiling Cladding With 102mm</u> <u>DonnFrame LB Studs At 600mm Centres Covered On</u> <u>One Side With 15mm Gyproc SoundBloc Boards With</u> <u>Staggered And Skimmed Joints With Gyproc Rhino</u> <u>Tape On Joints And 102mm Isover Cavitybatt In Cavity</u>					
4	Cladding with studs fixed to underside of concrete ceiling.	m2	35		
Carried to Collection				R	
Bill No. 10 CEILINGS, PARTITIONS AND ACCESS FLOORING MMPA Quantity Surveyors & Project Managers (Pty) Ltd					

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Item No		Quantity	Rate	Amount
	<u>BILL No. 11</u>			
	<u>FLOOR COVERINGS, WALL LININGS, ETC.</u>			
	<u>PREAMBLES</u>			
	Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
	For Preambles refer to The documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
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	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary Products In Descriptions</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>Fixing</u>			
	Floor coverings, wall linings, etc shall, where applicable, be fixed with adhesive as recommended by the manufacturers of the flooring, linings, etc.			
	Floor coverings are laid on screeded surfaces and wall linings on plastered surfaces unless otherwise described.			

	Carried to Collection		R	
	Bill No. 11 FLOOR COVERINGS, WALL LININGS, ETC. MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

COVERINGS AND LININGS

Vinyl flooring

Semi-flexible vinyl floor tiles size 300 x 300 x 2,5mm
thick of specified colour laid with adhesive

1	Sealed to prepared floors with adhesive in patterns.	m2	1
---	--	----	---

Polish, sealers, etc.

Clean by stripping and sealing and apply three coats
water based copolymer emulsion or other approved
sealer

2	On vinyl flooring.	m2	1
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Bill No. 11
FLOOR COVERINGS, WALL LININGS, ETC.
MMPA Quantity Surveyors & Project Managers (Pty) Ltd

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Bill No. 11

FLOOR COVERINGS, WALL LININGS, ETC.

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Bill No. 11

FLOOR COVERINGS, WALL LININGS, ETC.

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

Item No		Quantity	Rate	Amount
	<u>BILL No.12</u>			
	<u>IRONMONGERY</u>			
	<u>PREAMBLES</u>			
	Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
	For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary products in descriptions</u>			
	Where applicable the manufacturers' names or product catalogue titles are given in sub-headings preceding the items.			
	Prices are to be based on the specific products/articles specified. If tenderers wish to offer alternative products/articles for certain items, these items are to be clearly marked and the alternative specification given with supporting brochures etc clarifying the features of the products/articles offered.			
	On request returnable samples are to be provided to the principal agent for consideration.			
	<u>Descriptions</u>			
	Ironmongery is fixed to timber unless otherwise described.			
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	Bill No. 12 IRONMONGERY MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Finishes to ironmongery

Where applicable finishes to ironmongery are indicated by suffixes in accordance with the following list:

BS Satin bronze lacquered
CH Chromium plated
SC Satin chromium plated
SE Silver enamelled
GE Grey enamelled
AS Anodised silver
AB Anodised bronze
AG Anodised gold
ABL Anodised black
PB Polished brass
PL Polished and lacquered
PT Epoxy coated
SD Sanded

IRONMONGERY TO TIMBER DOOR IN STEEL FRAME

Handles

- | | | |
|---|---|----|
| 1 | "Dormakaba" or other equal approved lever handle on rose with cylinder escutcheons code: TH125 Cyl SS. (Sets) | No |
|---|---|----|

1

Locksets, etc. provided with two keys and to be masterkeyed

- | | | |
|---|---|----|
| 2 | "Dormakaba" or other equal approved 66mm five pin Euro-profile knob cylinder, master keyed code: DKC 106801 MK. | No |
|---|---|----|

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Lockcases, conversion sets, escutcheons, etc.

- | | | |
|---|--|----|
| 3 | "Dormakaba" or other equal approved cylinder sash lock, case dimensions (mm) 116.5 H x 78 D. Forend dimensions (mm) 168 H x 22 W. Backset 57mm, centres 61mm code: D036S SS. | No |
|---|--|----|

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IRONMONGERY

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IRONMONGERY

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IRONMONGERY

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<p><u>BILL No. 13</u></p> <p><u>METALWORK</u></p> <p><u>PREAMBLES</u></p> <p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Proprietary products in descriptions</u></p> <p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p> <p><u>Descriptions</u></p> <p>Tenderers are referred to architect's drawings annexed to these bills of quantities/accompanying these bills of quantities for tender purposes.</p> <p><u>Descriptions of bolts, anchors, etc.</u></p> <p>Descriptions of bolts shall be deemed to include nuts and washers.</p>			
<p>Carried to Collection</p>			R
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Descriptions of expansion anchors and bolts and chemical anchors and bolts shall be deemed to include nuts, washers and mortices in brickwork or concrete.

Items described as "holed for bolt(s)" shall be deemed to exclude the bolts unless otherwise described.

Items described as "plugged" shall be deemed to include screwing to fibre, plastic or metal plugs at not exceeding 600mm centres.

HOT DIPPED GALVANISED STEELWORK

Sundry Steelwork

Ragbolts, expanding bolts, anchor bolts, etc.

1	8mm Expansion bolt. (Local Production and Content)	No	14
2	10mm Expansion bolt. (Local Production and Content)	No	46
3	Bolts, nuts and washers. (Local Production and Content)	kg	20
4	"Hilti HIT HY- 200" or other equal approved anchor including mortice and epoxy into brickwork. (Local Production and Content)	No	34
5	"Hilti HKD-S" or other equal approved M16 x 65mm long galvanised mild steel flush expansion bolt including mortice in concrete. (Local Production and Content)	No	48

Stairs, balustrading, cat ladders, grilles, gates, framework, etc.

Galvanised mild steel "Andrew Mentis Inter-Link" or other equal approved ball type balustrading

6	34,1mm Diameter x 2,5mm thick Handrail tubing. (Local Production and Content)	m	24
7	Extra over for 90 degree short radius bend as item 5. (Local Production and Content)	No	2

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1	Ditto, but 45 degree radius bed as item 4C. (Local Production and Content)	No	4		
2	Ditto, but 90 degree long straight closure bend as item 2M. (Local Production and Content)	No	6		
3	Ditto, but 45 degree angle closure bend as item 3M. (Local Production and Content)	No	2		
4	Ditto, slip joint as item 6. (Local Production and Content)	No	28		
5	42,9mm Diameter x 3mm thick type MT90 stanchion 1000mm long. (Local Production and Content)	No	16		
6	42,9mm Diameter x 3,2mm thick type MST30 stanchion 1000mm long. (Local Production and Content)	No	8		
	<u>The following in balustrade, including all on and off-site welding, cutting, drilling, grinding smooth, touching up with cold galvanising, fixing in position to concrete surface bed (fixing bolts elsewhere measured)</u>				
7	75 x 75 x 3mm Square hollow section posts. (Local Production and Content)	kg	156		
8	80 x 80 x 6mm Angle top rail welded on and holed at 1200mm centres for 8mm bolts (bolts elsewhere measured). (Local Production and Content)	kg	199		
9	80 x 80 x 6mm Angle bottom rail welded on, holed at 1200mm centres on side for 8mm bolts (bolts elsewhere measured) and holed at 1200mm centres on bottom for 10mm expanding anchors (anchors elsewhere measured). (Local Production and Content)	kg	199		
	<u>Cat Ladders</u>				
10	Welded cat ladder 480mm wide and 4880mm high overall to UPS Room, of 65 x 10mm flat section stringers and 20mm diameter pipe rungs 480mm long at approximately 250mm centres, including flat and angle section connections bolted to brickwork or concrete (bolts elsewhere). (Local Production and Content)	kg	223		
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The following in cable protection cage, including all on and off-site welding, cutting, drilling, grinding smooth, touching up with cold galvanising, fixing in position to concrete surface bed as per drawing 32874.00-201-03 Rev.A bound to the back of these Bills of Quantities

1	60 x 60 x 3mm Square hollow section framing. (Local Production and Content)	kg	172
2	50 x 70 x 3mm Cleat welded on and once holed for 8mm bolts (bolts elsewhere measured). (Local Production and Content)	No	6
3	75 x 75 x 3mm Base plate welded on and twice holed ditto. (Local Production and Content)	No	4
4	25 x 50 x 1.8mm Flat expanded metal security mesh welded all round to frame. (Local Production and Content)	m2	10

The following in stormwater channel inspection panel, including all on and off -site welding, cutting, drilling, grinding smooth, touching up with cold galvanising, laid loose on top of brick walls

5	200 x 75 x 24.3kg/m Parallel flange channel section frame. (Local Production and Content)	kg	455
6	"Vital Engineering & Angus McLeod Vitagrid" or other equal approved walkway grating 40 x 4.5 (471kg) VE40 profile fixed to frame (Elsewhere Measured) as per manufacturers specification. (Local Production and Content)	m2	5

Slab supports

7	100 x 100 x 8mm Angle section slab support holed along one edge at 1000mm centres. (Local Production and Content)	m	24
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Floors, etc. formed of open grillework or gratings

Cover

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	<u>High density polyethylene</u>				
1	38mm "Fibretek" or other equal approved GRP code: M38 grating laid on angle iron framing (Elsewhere Measured).	m2	16		
	<u>Framework, etc.</u>				
	<u>Hot dipped galvanised steel</u>				
2	40 x 40 x 5mm Angle edge protector with R8 x 120mm girth lugs welded on back at 350mm centres, cast into concrete. (Local Production and Content)	m	68		
3	Extra over for mitred and welded L-intersection. (Local Production and Content)	No	35		
	<u>DOORS, WINDOWS, CURTAIN WALLING, SHOPFRONTS, ETC.</u>				
	<u>PRE-GALVANIZED PRESSED STEEL DOOR FRAMES</u>				
	<u>1,2mm Thick double rebated frame for one brick wall complete with butts, etc. and including setting up, building in, filling back of frame with cement mortar, etc.</u>				
4	Frame for door size 813 x 2032mm. (Local Production and Content)	No	1		
	<u>PRE-GALVANISED PRESSED STEEL TRANSFORMER ROOM DOORS AND FRAMES</u>				
	<u>1,6mm Thick door with 1,6mm thick double rebated frame for 280mm brick wall complete with butts, etc. and including setting up, building in, filling back of frame with cement mortar, etc.</u>				
5	Double door type D size 1830 x 2440mm and frame. (Local Production and Content)	No	1		
6	Double door with vent type DVA size 1830 x 2440mm and frame. (Local Production and Content)	No	1		
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<u>STEEL SOUNDPROOF DOORS AND FRAMES</u>			
1	"Trox Technik" or other equal approved single leaf low leakage steel door and angle section frame type ST-XT with door leaf size 600mm wide x 1800mm high.	No	2
<u>Miscellaneous</u>			
<u>Ventilation panels</u>			
2	"Trox AWK" or other equal approved natural anodised aluminium permanent ventilation louvre panel with 50mm pre-drilled flange for fixing to brickwork, size 450 x 450mm high.	No	1
3	"Trox AWG" or other equal approved natural anodised aluminium permanent ventilation louvre panel with 50mm pre-drilled flange for fixing to brickwork, size 600 x 3000mm high.	No	1
4	"Trox AWG" or other equal approved natural anodised aluminium permanent ventilation louvre panel with 50mm pre-drilled flange for fixing to brickwork, size 1000 x 1200mm high.	No	1
5	"Trox AWG" or other equal approved natural anodised aluminium permanent ventilation louvre panel with 50mm pre-drilled flange for fixing to brickwork, size 2800 x 3000mm high.	No	1
6	"Trox AWG" or other equal approved natural anodised aluminium permanent ventilation louvre panel with 50mm pre-drilled flange for fixing to brickwork, size 4075 x 3000mm high.	No	1
<u>ALUMINIUM WINDOWS, DOORS, ETC.</u>			
All aluminium windows and doors are to be manufactured from "Sheerline Aluminium Systems" or other equal approved sections and profiles.			
All aluminium windows and doors are to be manufactured in strict accordance with the latest AAAMSA specifications by a registered Member of the Association.			
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All units are to be pre-glazed in strict accordance with the latest requirements of SAGGA and National Building Regulations.

All units are to be supplied with a protective plastic covering, which is to be removed only once all adjacent plastering and painting is complete.

Powder coated , Charcoal, aluminium windows, doors, sidelights, etc.

Pre-glazed aluminium sliding windows complete with ironmongery and 20 x 10mm burglar bars at 100mm centres to sliding opening sash, screwed to frame including setting up, fixing in position in 280mm thick brick wall (wall elsewhere measured),etc. all as per drawing 20394/4801 bound to the back of these Bills of Quantities

- 1 Horizontal sliding window in two equal lights (one fixed and one sliding), size overall 1600 x 1200mm high, both lights glazed with and including 6.38mm **clear** laminated safety glass, the sliding pane to be fitted with and including proprietary sliding door lever latch to internal face.

No

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Item No		Quantity	Rate	Amount
	<u>BILL No. 14</u>			
	<u>PLASTERING</u>			
	<u>PREAMBLES</u>			
	<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p>			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	<p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p>			
	<u>Proprietary products in descriptions</u>			
	<p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p> <p>-----</p>			
	<u>SCREEDS</u>			
	<u>3:1 Cement screeds</u>			
1	25mm Thick screed to floors and landings.	m2	151	
2	Average 130mm thick screed to roof slabs to falls and crossfalls.	m2	153	
	Carried to Collection		R	
	Bill No. 14 PLASTERING MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

GRANOLITHIC

Untinted 1:3 cement sand render steel trowelled on concrete

1	25mm Thick on treads and risers of stairs including reedings.	m2	4
2	Ditto, but narrow widths not exceeding 300mm wide.	m	13
3	Average 25mm Thick to door threshold not exceeding 300mm girth including reedings.	m	10
4	Average 30mm thick screed to floors and landings to falls and crossfalls.	m2	58

PLASTER

One coat external 1:5 cement plaster on

5	Brick wall.	m2	3
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One coat internal 1:4 cement plaster on

6	Brick wall.	m2	586
7	Ditto, but narrow widths not exceeding 300mm wide.	m2	11
8	Sides of concrete beams.	m2	11

Skirtings and stoolings

Untinted 1:3 cement sand render steel trowelled on concrete

9	75mm High coved granolithic skirting.	m	111
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Dividing strips, edge trims etc.

10	3 x 25mm Flat section brass dividing strip or waterbar set on edge in screed between different floor finishes.	m	11
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OTHER IN-SITU FINISHES

EPOXY COATINGS

Shot blast and vacuum by mechanical means to remove surface oil, burnished finish, degraded paint, curing compound and laitence, etc.

1	On concrete surface bed.	m2	184
	<u>Wash floor with "ABE Super Brush Cleaner" or other equal approved at 3m2/litre, wash again with an approved industrial detergent and rinse with fresh water</u>		
2	On concrete surface bed.	m2	184
	<u>Two coats "Abecote 437" or other equal approved water dispersed epoxy paint at 9m2/litre</u>		
3	Floors.	m2	181
4	Floors to falls and crossfalls.	m2	53
5	Walls.	m2	72
6	Coved skirtings not exceeding 300mm girth.	m	113

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PLASTERING

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Item No	Quantity	Rate	Amount
<p><u>BILL No. 15</u></p> <p><u>PLUMBING AND DRAINAGE</u></p> <p><u>(PROVISIONAL)</u></p> <p><u>PREAMBLES</u></p> <p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p><u>SUPPLEMENTARY PREAMBLES</u></p> <p><u>Preambles</u></p> <p>The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.</p> <p><u>Excavations</u></p> <p>No claim for rock excavation will be entertained unless the contractor has timeously notified the quantity surveyor thereof prior to backfilling.</p> <p><u>Laying, backfilling, bedding, etc. of pipes</u></p> <p>Pipes shall be laid and bedded in accordance with manufacturers' instructions and trenches shall be carefully backfilled.</p>			
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Where no manufacturers' instructions exist, pipes shall be laid in accordance with Clauses 5.1 and 5.2 of each of the following:

SANS 1200L : Medium-pressure pipelines

SANS 1200LD : Sewers

SANS 1200LE : Stormwater drainage

Pipe trenches, etc shall be backfilled in accordance with Clauses 3, 5.5, 5.6, 5.7 and 7 of SANS 1200DB : Earthworks (Pipe trenches).

Pipes shall be bedded in accordance with Clauses 3.1 to 3.4.1, 5.1 to 5.3 and 7 of SANS 1200LB : Bedding (Pipes).

Unless otherwise described bedding of rigid pipes shall be Class B bedding.

uPVC Pipes and fittings

Sewer and drainage pipes and fittings shall be jointed and sealed with butyl rubber rings.

Soil, waste and vent pipes and fittings shall be solvent weld jointed or sealed with butyl rubber rings.

Exposed concrete surfaces

Exposed surfaces of concrete stormwater channels, cover slabs, inspection eye marker slabs, gulley tops, cleaning eye tops, catchpits, inspection chambers, etc. shall be finished smooth with plaster.

General

Descriptions of service pipes and flexible connecting pipes shall be deemed to include connections to taps, cisterns, etc and to steel pipes (adaptors for connections to copper pipes, etc. are given separately).

Descriptions of WC pans, slop hoppers, etc shall be deemed to include for joints to soil pipes (pan connectors are separately measured).

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Reducing fittings

Where fittings have reducing ends or branches they are described as "reducing" and only the largest end or branch size is given. Should the contractor wish to use other fittings and bushes or reducers he may do so on the understanding that no claim in this regard will be entertained.

Waste unions

Descriptions of waste unions shall be deemed to include rubber or vulcanite plugs and chains fixed to fittings.

Sealing of edges

Outer edges of sinks, basins, baths, urinals, etc. are to be sealed against adjacent surfaces with approved silicone.

Stainless steel basins, sinks, wash troughs, urinals, etc.

Stainless steel for urinals, basins, quality sinks, wash troughs, institutional equipment, etc shall be Type 304 (18/8).

Stainless steel for laboratory sinks, photographic equipment, etc shall be Type 316 (18/8).

Units shall have standard aprons on all exposed edges and tiling keys against walls where applicable.

Fixing of pipes

Unless specifically otherwise stated, descriptions of pipes shall be deemed to include fixing to walls, etc., casting in, building in or suspending not exceeding 1m below suspension level.

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uPVC Pressure pipes and fittings

Pipes of 50mm diameter and smaller shall be plain ended with solvent welded uPVC loose sockets and fittings.

Pipes of 63mm diameter and greater shall have sockets and spigots with push-in type integral rubber ring joints. Bends shall be uPVC and all other fittings shall be cast iron, all with similar push-in type joints.

High density Polyethylene (HDPE) pipes and fittings

Pipes shall be type IV and of the class specified with "Plasson" or "Alprene" or equal and approved compression fittings.

Copper pipes

Pipes shall be hard drawn and half-hard "Maksal" or equal and approved pipes of the class described. Class 0 (thin walled hard drawn) pipes shall not be bent. Class 1 (thin walled half-hard), Class 2 (half-hard) and Class 3 (heavy walled half-hard) pipes shall only be bent with benders with inner and outer formers. Fittings to copper waste, vent and anti-syphon pipes, capillary solder fittings and compression fittings shall be "Cobra Lixil" type. Capillary solder fittings shall comply with ISO 2016.

Copper pipes are to be installed in accordance with the latest revision of the Code of Practice for Copper Plumbing soldering techniques. Flux, solder, etc to be strictly in accordance with the manufacturer's requirements with special attention to copper flux composition.

Paper wrapping to pipes

Pipes chased into brickwork must be wrapped with two layers of stout brown paper tied with wire. Rates are to include for wrapping around joints and fittings.

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"Densyl" Petrolatum anti-corrosion tape or other equal approved as manufactured by Denso SA (Pty) Ltd.

Pipes to be taped shall be coated with the appropriate primer and the tape shall be applied in the appropriate widths and with minimum 15mm lap per spiral unless otherwise described.

Couplings and fittings to pipes shall be taped in strict accordance with the manufacturer's instructions including mastic, tape, "Layflat" sheeting or other equal approved, securing of same, etc.

Prices for wrapping of pipes shall include for all work as described to couplings in the length.

Disinfection of water pipework

Water pipework is to be disinfected at completion in accordance with SABS 1200L (provision for disinfection elsewhere).

As-Built drawings

Where required, the contractor shall prepare an updated set of as-built drawings. At completion of the contract the contractor shall hand these drawings to the principal agent for reproducing onto the originals for handing over to the employer (provision for allowance of as-built drawings - Preliminaries Clause B11.11).

RAINWATER DISPOSAL

Roof gutters, rainwater pipes, etc.

Rainwater pipes

0.60mm Thick galvanised sheet iron with 75mm wide laps

1	100mm Diameter rainwater pipe fixed to walls with GMS stand off bracket. (Local Production and Content)	m	36
2	Ditto, but laid in concrete. (Local Production and Content)	m	5

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	<u>Extra over 100mm diameter downpipes for</u>			
1	Shoe. (Local Production and Content)	No	6	
2	45 Degree bend. (Local Production and Content)	No	6	
3	End cap. (Local Production and Content)	No	6	
4	Purpose made junction all as per drawing 20394/4501/1 bound to the back of these Bills of Quantities. (Local Production and Content)	No	6	
	SUBSOIL DRAINAGE			
5	Excavation in earth not exceeding 1m deep for pipe trenches.	m3	6	
6	Backfilling to pipe trenches.	m3	2	
7	19mm Crushed stone encasing to pipes.	m3	6	
8	Geofabric filter blanket wrapped around 400 x 400mm stone encasing with 150mm side and 150mm end laps, including stitching.	m2	72	
	<u>Slotted PVC-U flexible drainage pipes</u>			
9	110mm Pipes laid in stone encasing (encasing elsewhere). (Local Production and Content)	m	36	
	<u>Extra over slotted PVC-U flexible drainage pipes for fittings</u>			
10	110mm End cap. (Local Production and Content)	No	1	
11	110mm Bend. (Local Production and Content)	No	4	
	<u>PIPEWORK ETC.</u>			
	<u>DRAINAGE PLUMBING</u>			
	<u>Pipes, pipe fittings, etc.</u>			
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	<u>uPVC Socketed soil, waste and vent piping and fittings (SABS 967) including short lengths, cutting, jointing and holderbats</u>				
1	110mm Pipe and fixing to falls to walls, floors, in roofs, soffit of concrete slab, in concrete, etc. (Local Production and Content)	m	30		
	<u>Sundries</u>				
2	End of 110mm diameter uPVC pipe built into brickwork including 20mm "Flexijoint" or other equal approved between pipe and brickwork.	No	10		
3	450mm Diameter concrete pipe built into brickwork including 20mm "Flexijoint" or other equal approved between pipe and brickwork.	No	2		
	<u>Cast Iron</u>				
4	"Saint-Gobain" or other equal approved 100mm diameter fulbore outlet code: 3505 cast into concrete slab and jointed to 100mm GMS pipe.	No	7		
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<u>Inspection chambers, catch pits, etc.</u>					
<u>Covers and frames</u>					
1	"Saint-Gobain" or other equal approved Type 1A 650mm diameter code: 2230 bedded on top of concrete slab in cement mortar.	No	3		
2	"Saint-Gobain" or other equal approved 450 x 450mm manhole cover and frame code: 2040 fixed to top of concrete ribs with 8 x 65mm expansion bolts.	No	1		
3	"Saint-Gobain" or other equal approved 450 x 450mm storm water grate code: 2886 bedded on top of concrete slab in cement mortar.	No	1		
4	"Calcamite" or other equal approved long leg step irons overall length of 185mm with tail pieces 70 x 25mm diameter, including building tail pieces into brickwork.	No	15		
<u>SLEEVES AND HOLES</u>					
<u>Sleeves</u>					
<u>"Nextube Kabelflex" or other equal approved HDPE pipes or coils including short lengths, cutting, jointing, laying in, fixing to and including galvanised steel draw wires</u>					
5	Set of 10 x 160mm pipes and fixing to concrete soffit. (Local Production and Content)	m	50		
6	Ditto, but to walls. (Local Production and Content)	m	6		
<u>Extra For HDPE Or uPVC Fittings</u>					
7	160mm Long radius rigid bend. (Local Production and Content)	No	110		
<u>Holes</u>					
<u>Core drilling hole exceeding 100mm and not exceeding 200mm diameter</u>					
8	Through 350mm concrete filled cavity brick wall.	No	110		
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Item No	Quantity	Rate	Amount
<u>BILL No. 16</u>			
<u>PAINTWORK</u>			
<u>PREAMBLES</u>			
<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2"and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p>			
<u>SUPPLEMENTARY PREAMBLES</u>			
<u>Preambles</u>			
The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
<u>Proprietary products in descriptions</u>			
<p>Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.</p>			
<u>Descriptions</u>			
All concrete surfaces are smooth unless otherwise described.			
All surfaces of walls are internal unless otherwise described.			
All plaster surfaces are smooth (floated) unless otherwise described.			
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Bill No. 16 PAINTWORK MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

PREPARATORY WORK TO EXISTING WORK

Previously painted plastered surfaces

Surfaces shall be thoroughly washed down and allowed to dry completely before any paint is applied. Blistered or peeling paint shall be complete removed and cracks shall be opened, filled with a suitable filler and finished smooth.

Previously painted metal surfaces

Surfaces shall be thoroughly rubbed and cleaned down. Blistered or peeling paint shall be complete removed down to bare metal.

Previously painted wood surfaces

Surfaces shall be thoroughly cleaned down. Blistered or peeling paint shall be completely removed and cracks and crevices shall be primed, filled with a suitable filler and finished smooth.

REDECORATION WORKS

PREPARATORY WORK TO EXISTING SURFACES

Clean down manually with a mild detergent including removing all marks, stains and foreign debris etc.

1	Painted plastered walls.	m2	9
2	Painted plastered ceilings.	m2	2
	<u>Clean down with a high pressure water jet to remove all contaminants, loose and organic material, etc.</u>		
3	Painted plastered walls.	m2	14

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<u>REDECORATION OF PREVIOUSLY PAINTED PLASTER, FIBRE REINFORCED CEMENT, ETC.</u>					
<u>Clean down, remove all dust, debris etc. prepare and apply one coat bonding liquid, one filler coat and two coats interior quality PVA emulsion on internal</u>					
1	Plastered walls.	m2	9		
2	Plastered ceilings.	m2	2		
<u>Clean down, remove all dust, debris etc. prepare and apply one coat bonding liquid, one filler coat and two coats exterior quality PVA emulsion on external</u>					
3	Plastered walls.	m2	14		
<u>NEW WORKS</u>					
<u>PAINT ON PLASTER, FIBRE REINFORCED CEMENT, ETC.</u>					
<u>PAINT ON PLASTER</u>					
<u>One coat plaster primer, one coat universal undercoat and two coats exterior quality PVA emulsion on</u>					
4	External smooth plastered walls.	m2	3		
<u>One coat plaster primer, one coat universal undercoat and two coats interior quality PVA emulsion on</u>					
5	Internal smooth plastered walls.	m2	486		
6	Gypsum board partitions.	m2	37		
<u>One coat plaster primer, one coat universal undercoat and two coats washable PVA emulsion paint on</u>					
7	Plastered walls to LV Trenches.	m2	128		
<u>Prepare and apply one coat sealer/undercoat and two coats exterior quality PVA emulsion on</u>					
8	Fibre cement roof balustrade.	m2	47		
<u>PAINT ON TIMBER</u>					
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	<u>Prepare and apply one coat pink wood primer, one undercoat and two coats satin finish non-drip enamel paint on</u>		
1	Surfaces of flush panel doors.	m2	47
	<u>Prepare and apply three coats interior quality suede varnish on</u>		
2	Skirtings, cornices or rails not exceeding 300mm girth.	m	3
	<u>PAINT ON METALWORK</u>		
	<u>Prepare and apply one coat bituminous paint on</u>		
3	Backs of pressed steel door linings.	m2	22
	<u>One coat steel etch primer, one coat universal undercoat and two coats satin finish non-drip enamel paint on</u>		
4	Steel door frames.	m2	26
5	Surfaces of steel doors.	m2	5
6	Surfaces of transformer room doors.	m2	19
7	Sheet iron rainwater hopper.	m2	3
8	Sheet iron rainwater pipe not exceeding 300mm girth.	m	36
9	Mild steel tubular rails, etc. not exceeding 300mm girth.	m	57

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PAINTWORK
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Item No		Quantity	Rate	Amount
	<u>BILL No. 17</u>			
	<u>STORMWATER DRAINAGE</u>			
	<u>PREAMBLES</u>			
	<p>Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.</p> <p>For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.</p> <p>-----</p>			
	<u>STORMWATER CHANNELS</u>			
	<u>Surface water channels</u>			
1	Cement concrete 35MPa V-shaped open surface water channel, size 600mm wide x 150mm thick extreme to 100mm thick, finished smooth on all exposed surfaces in untinted granolithic with angles rounded, laid to falls in lengths not exceeding 2000mm on a well rammed earth bottom, jointed in 3.1 cement mortar including shallow excavation, requisite formwork, ramming and depositing and levelling excavated material on site where directed.	m	24	
	<u>Extra over surface water channels for</u>			
2	Fair end on 600mm wide channel.	No	2	
	<u>250 Micron "Gunplas USB" or other equal approved green polyethylene sheeting</u>			
3	Laid flat on prepared fill under channel.	m2	11	
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	STORMWATER DRAINAGE			
	MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

<u>PIPEWORK, ETC.</u>		
<u>Pipes, pipe fittings, etc.</u>		
<u>STORMWATER DRAINAGE</u>		
Solid wall uPVC socketed soil piping (SABS 791) including short lengths, cutting, jointing, laying in trenches, compacted bedding cradle and fill blanket as SABS 1200 LB (Flexible Pipe Bedding), excavation, risk of collapse, keeping excavations free of water and backfilling with selected imported material as SABS 1200 DB		
200mm Stormwater drainage pipe not exceeding 1000mm deep. (Local Production and Content)	m	37
<u>Extra For</u>		
200mm Bend. (Local Production and Content)	No	9
200mm PVC junction. (Local Production and Content)	No	1
<u>Excavations in earth of more difficult character</u>		
Extra over excavations in earth for excavation in soft rock.	m3	4
Extra over excavations in earth for excavation in hard rock.	m3	2
<u>Sundries</u>		
Extra over all excavations for pipe trenches for carting away from the site all surplus material from the excavations (measured net - no allowance for bulking).	m3	14
Imported G7 material as backfill to pipe trenches under roads and compact in 150mm layers to 93% modified AASHTO density.	m3	14
<u>Inspection chambers, catch pits, etc.</u>		
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<u>Stormwater catchpits, grid inlets, manholes, etc.</u>					
1	Excavate for and build catchpit size 450 x 450 x not exceeding 1000mm deep internally, formed of 150mm thick cement concrete (25MPa) bottom projecting 75mm all round, one brick sides with two Y6 bars between each course, 200mm high cement concrete (30MPa) kerb around top with Y12 bars at 150mm centres both ways, rebated for cover and frame (elsewhere), finished on all exposed surfaces in 3.1 cement plaster and bottom graded to outlets in 3.1 cement mortar.	No	7		
2	Ditto, but size 800 x 800 ditto.	No	1		
<u>Covers and frames</u>					
3	"Saint-Gobain Aquamax" or other equal approved class D400 cast iron stormwater grid and frame size 450 x 450mm SAP Code: 21083 bedded on top of concrete slab in cement mortar.	No	7		
4	"Saint-Gobain Dedra" or other equal approved class D400 cast iron stormwater grid and frame size 800 x 800mm SAP Code: 21088 bedded on top of concrete slab in cement mortar.	No	1		
<u>Excavations in earth of more difficult character</u>					
5	Extra over excavations in earth for excavation in soft rock.	m3	0.2		
6	Extra over excavations in earth for excavation in hard rock.	m3	0.1		
<u>Sundries</u>					
7	End of 200mm diameter uPVC pipe built into brickwork including 20mm "Flexijoint" or other equal approved between pipe and brickwork.	No	14		
8	Extra over all excavations for pipe trenches for carting away from the site all surplus material from the excavations (measured net - no allowance for bulking).	m3	8		
9	Allow for keeping excavations free from water.		Item		
<u>Holes</u>					
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STORMWATER DRAINAGE

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STORMWATER DRAINAGE

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Item No		Quantity	Rate	Amount
	<u>BILL No. 18</u>			
	<u>ROADWORK, PAVED AREAS, ETC.</u>			
	<u>PREAMBLES</u>			
	Note: Tenderers are advised to study the Model Preambles for Trades before pricing this bill.			
	For Preambles refer to the documents "Construction Works: Specifications: General Specification (PW371-A) Edition 2.1" and "Construction Works: Specifications: Particular Specification (PW371-B) Edition 2.2" and shall be read in conjunction with the bills of quantities and be referred to for the full descriptions of work to be done and materials to be used.			
	<u>SUPPLEMENTARY PREAMBLES</u>			
	<u>Preambles</u>			
	The Preambles and the Notes in the various trade bills are to, and do, apply equally to this section.			
	<u>Proprietary Products In Descriptions</u>			
	Proprietary products shall be used as specified. Substitute products of similar quality and specification may only be used with prior approval by the Principal Agent.			
	<u>Checking Levels</u>			
	Before commencing any works under "Site Excavations", cross sections shall be taken by the contractor and these levels shall be compared with those given on the drawings. Failure by the contractor to report any discrepancy between the physical levels and those shown on the drawings will be construed as acceptance of the latter by him.			
	Carried to Collection		R	
	Bill No. 18 ROADWORKS, PAVED AREAS, ETC. MMPA Quantity Surveyors & Project Managers (Pty) Ltd			

Nature Of Ground

The nature of the ground is unknown and the contractor is to make his own assessment and due allowance for same.

Quantities

The quantities of excavations and concrete shall be the net sizes to be formed in accordance with the drawings and specifications and shall be not less than the horizontal area of the bottom of the relevant structures multiplied by the average depth or thickness.

Carting Away Of Excavated Material

Descriptions of carting away of excavated material shall be deemed to include loading excavated material onto trucks directly from the excavations, or alternatively, from stock piles situated on the building site.

Filling

Notwithstanding the reference to prescribed multiple handling in clause 1 page 10 of the Standard System of Measuring Building Work, prices for filling and backfilling shall include for all selection and any necessary multiple handling of material.

Imported fill:

Filling and bedding to trenches etc. to be in compliance with SANS 1200 DB and LB respectively.
Site clearance and external paved areas earthworks to be in compliance with SANS 1200C and D respectively.

Density Testing On Filling

Rates for filling, etc. shall include for all density and soil type testing to prove that the specified compaction is achieved. When additional testing is done on instruction of the Principal Agent and these tests are successful, they will be paid for additionally.

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Formwork

Formwork to sides of footings, bases, pile caps, ground beams, etc. will only be measured where it is prescribed by the engineer for design reasons.

Formwork necessitated by irregularity or collapse of excavated faces will not be measured and the cost thereof shall be deemed to be included in the allowance for taking the risk of collapse of the sides of the excavations.

ROADWORK

Road surfacing

Reinstatement of road surface

1	Sweep off all loose material from base course, prime with MC 30 SP and apply two coat surface treatment comprising a first layer of 13.2mm aggregate, spread at a rate of 0.009 m3/m2 covered with a coat of cationic Grade 65 spray at a rate of 0.82 l/m2, the second layer of 6.7mm aggregate, spread at a rate of 0.005 m3/m2 covered with a coat of cationic Grade 65 spray at a rate of 0.98 l/m2 all in accordance with SANS 1200 M and SANS 1200 MG.	m2	19
2	Junction of existing asphalt surface with new surface.	m	112

Excavations, filling, basecourses, etc.

BASECOURSES

3	G5 Sub-base course, selected and supplied by the Contractor, deposited in layers not exceeding 150mm thick, watered and consolidated to 95% modified AASHTO density under pavings.	m3	37
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Sundries

4	Rip reduced platform level and recompact to 90% Mod. A.A.S.H.T.O. density.	m2	245
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ROADWORKS, PAVED AREAS, ETC.

MMPA Quantity Surveyors & Project Managers (Pty) Ltd

	<u>Prescribed Testing</u>			
1	Provide and have filling compaction check tested by a Consulting Engineer's Laboratory and deliver the results to the Architect within 24 hours of the tests being completed.	No	1	
	<u>PRECAST CONCRETE PAVERS</u>			
	<u>Grey interlocking precast concrete pavers laid in herringbone pattern with header course perimeter margin</u>			
2	Take from store and relay 60mm thick concrete pavers laid on and including 20mm sand bed treated with weed killer and cement/sand mixture swept into joints on completion.	m2	226	
3	200 x 100mm thick mass concrete (15MPa) bedding under edge of paving including excavation, formwork, etc.	m	100	
	<u>Painting</u>			
	<u>Two coats non-slip road traffic paint on precast concrete paved surfaces</u>			
4	100mm Wide painted demarcation lines.	m	50	
5	"STOP" sign.	No	1	
	<u>Channelling, kerbing, edging, etc.</u>			
	<u>PRECAST CONCRETE KERBING</u>			
6	Precast concrete Fig 4 kerb, cast in lengths not exceeding 1m and with expansion joints at not exceeding 10m centres finished smooth off the mould on all exposed surfaces bedded on and including 30mm thick mass concrete 20 MPa/19 mm stone base including all necessary excavation, formwork, expansion joints, etc.	m	20	
	<u>FUEL OFFLOADING PLATFORM</u>			
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	<u>Breaking up and removing</u>				
1	Tarmac surfaces.	m2	40		
	<u>Excavations, Filling, Etc As SANS 1200 D</u>				
2	Soft excavation to open face over site to reduce levels.	m3	16		
	<u>Extra Over All Excavations For Carting Away Of</u>				
3	Surplus material from excavations and/or stock piles on site to a dumping site to be located by the contractor.	m3	16		
	<u>Layerworks, etc. including compaction density tests</u>				
4	Imported G7 filling, selected and supplied by the Contractor, including depositing in layers not exceeding 150mm thick and compacting to 95% modified AASHTO dry density under solid floors.	m3	6		
	<u>Scarify, mix and consolidate top 150mm of subgrade</u>				
5	Under floors to 93% modified AASHTO density.	m2	40		
	<u>Reinforced concrete 30MPa (19mm stone) in</u>				
6	Surface beds cast in panels including temporary formwork.	m3	10		
	<u>Surface treatment</u>				
7	Wood float surface of concrete.	m2	40		
	<u>Formwork to</u>				
8	Edge, riser, etc. not exceeding 300mm high.	m	28		
	<u>Projections, grooves, etc.</u>				
9	Labour and material in forming 20 x 20mm chamfer to exposed top edge of concrete.	m	28		
	<u>Movement joints</u>				
10	10mm Thick closed cell polyethylene joint filler with hinged blocking piece between concrete and concrete or brickwork surfaces not exceeding 300mm wide.	m	14		
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<p><u>FINAL SUMMARY</u></p> <p style="text-align: right;">Brought Forward</p> <p><u>CONTINGENCIES</u></p> <p>The tenderer is to add a contingency allowance of 10% (Ten Percent) of the Sub-total value above to the tender before adding Value Added Tax.</p> <p>TOTAL OF BUILDING WORKS AND CONTINGENCIES</p> <p>VAT at the rate of 15%</p>	Item	<p>R</p> <hr/> <p>R</p> <p>R</p> <hr/> <p>R</p> <hr/>
<p style="text-align: right;">Carried to Form of Tender</p> <p>MMPA Quantity Surveyors & Project Managers (Pty) Ltd</p>		<p>R</p> <hr/>